

Annual Return of Statistics relating to Forest Administration in British India for the year 1933-34

**(With which is incorporated
the Quinquennial Review,
ending 31st March 1934)**



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Corrigenda.

Annual Return of Statistics relating to Forest Administration in British India for the year 1932-33, Statement XII, page 16, columns 2, 3 and 5.

Against Assam *read* 652 ; 2,259 and 2,911 *for* 806 ; 13,899 and 14,705, respectively.

Against Total 1932-33 *read* 138,868 ; 21,761 and 163,154 *for* 139,022 ; 33,401 and 174,948, respectively.

Errata to the Annual Return of Statistics relating to Forest Administration in British India for the year 1933-34.

Page 35—Statement XIII—

In column 13 against Coorg *for* the figure 8 *read* .8 and against the totals for 1930-31 *for* the figures 1961 *read* 196.

In column 6 against N.-W. F. Province *for* the figure 22.000 *read* 22,000.

Page 33—Statement XI—

In column 22 under totals against 1929-30 *for* the figures 14,080,484 *read* 14,083,895.

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QUINQUENNIAL REVIEW.

Constitution of the Forests.

The following review of Forest Administration in British India during the five years ending 31st March 1934 is published for general information.

Forest Area.—At the close of the quinquennium under review the forest area in British India, including the Shan States, amounted to 282,664 square miles, of which 106,079 square miles are reserved, 7,003 square miles protected, and 169,582 square miles unclassed State forests, the whole representing 25·7 per cent. of the total area of British India (with the Shan States) or taking into account only reserved and protected forests 10·3 per cent.

The net increase over the previous quinquennium is 32,842 square miles which is mainly due to the transfer of a large area of unclassed forest in the Federated Shan States to the Forest department.

Other important changes are:—

Increase.—1,041 square miles in Assam due to addition of Sadiya Frontier tract and recalculation of areas; 105 square miles in the North-West Frontier Province by transfer from the Civil department; 104 square miles in Bengal, 397 square miles in Burma and 337 square miles in Coorg due to bringing certain areas under the control of the Forest department.

Decrease.—148 square miles in the Punjab disforested for colonisation purposes; 211 square miles in the Central Provinces and 61 square miles in Bihar and Orissa were given out mainly for cultivation. A net decrease of 2,984 square miles in Madras was due to the transfer of areas to be constituted as Ryots' forests under the control of the Revenue department.

2. *Forest Surveys.*—The area surveyed by the Survey of India amounted to 4791·8 square miles, and 798 sheets were published. The cost debited to the Forest department on account of mapping and publishing and the cost of special surveys, etc., amounted to Rs. 5,11,818 as compared with a sum of Rs. 11,47,660 during the previous period.

Organisation.

3. *Administration and Control.*—The appointment of Inspector General of Forests and President, Forest Research Institute and College, was held by Sir Alexander Rodger till the 13th August 1930 when he proceeded on leave preparatory to retirement. He was succeeded by Mr. A. D. Blascheck who held the post till the 9th November 1933 before proceeding on leave preparatory to retirement. Mr. C. G. Trevor took over charge from Mr. A. D. Blascheck on the afternoon of the 9th November 1933.

During the period under review the Inspector General of Forests made tours of inspection in Assam, Bengal, Burma, Bihar and Orissa, Coorg, Madras, and the Andamans.

A post of a Conservator of Forests was created in 1930 in the North-West Frontier Province and forest operations were extended to the whole province including the Agencies. In April 1932 when the North-West Frontier Province was declared to be a Governor's province 'Forests' became a "Transferred Subject" and were placed under the control of a Minister.

During the whole of the period under review "Forests" were a transferred subject in the provinces of Burma and Bombay.

In consequence of the severe trade depression and the slump in all commodities including timber which has swept over the whole world, all possible reduction in expenditure had to receive the earnest consideration of the department. In addition to the emergency cut in the salaries of the staff considerable reduction was made in the cadre. In Bengal one post of Conservator was held in abeyance. Three vacant posts in the Indian Forest Service in the United Provinces, one post of Conservator and eight posts in the Indian Forest Service

in the Punjab have been abolished. The Indian Forest Service cadre of Bihar and Orissa has been reduced from seventeen to fifteen: the actual strength being 16. In Assam the cadre of the Indian Forest Service has been reduced from seventeen to sixteen. One of the two posts of Conservator and the posts of Silviculturist and Working Plan Officer were kept in abeyance. The Indian Forest Service cadre of the Central Provinces has been reduced from thirty-two to twenty-nine.

In view of the impending constitutional changes the Madras Government have decided to have a unified forest service combining the Indian Forest Service and Madras Forest Service with a strength of eighty-four posts as against one hundred at the commencement of the quinquennium. In Burma Conservators' circles were reduced from nine to six and the combined Indian Forest Service and Burma Forest Service Class I cadre reduced from one hundred and nineteen to eighty-four. In Bombay the gazetted services of the Forest department were provincialised with effect from 1st October 1929. The service is designated the Bombay Forest Service and has been divided into classes I and II. There are at present 49 officers in the cadre (as against the original strength of 70), i.e., twenty-three Indian Forest Service, eight Class I officers and eighteen Class II officers.

Recruitment and Training.

4(a). *Indian Forest Service*.—Pending a discussion on the recommendation of the Services Sub-Committee of the Round Table Conference, 1930, recruitment to the Indian Forest Service both direct and by promotion was suspended in 1931.

The Indian Forest Service College which was opened in 1926 trained twenty-eight students in all as follows:—

1926-28	. . . . .	11 students.
1927-29	. . . . .	6 „
1928-30	. . . . .	5 „
1929-31	. . . . .	4 „
1930-32	. . . . .	2 „

The College had to be closed down in November 1932 as the number of students gradually decreased and sufficient support for its continuance was not forthcoming from the Provinces.

In their report the Joint Parliamentary Committee have recommended the maintenance of a common training centre for Forest officers and if the Indian Provinces unanimously demand such a training the re-opening of the College may be considered.

The recruitment made to the Indian Forest Service in provinces other than Bombay and Burma during the 5 years period under review compares as follows with the preceding quinquennium ending 31st March 1929:—

	During the 5-year period	
	1924-25 to 1928-29.	1929-30 to 1933-34
Europeans	5	5
Indians	32	16

It was in 1924 that the ratio of recruitment of Indians and Europeans to the Indian Forest Service was fixed at 75 per cent. and 25 per cent. respectively. The number of Indians and Europeans who were appointed to Indian Forest Service after 1924 in the provinces other than Bombay and Burma and are still in service is Indians 47 and Europeans 10. This shows a deficiency of 4 in the European quota and is due partly to the fact that recruitment to the Indian Forest Service was suspended in 1931 and partly to casualties among the appointed staff.

The proportion of promoted officers to those appointed direct during the preceding quinquennium was 24·4 per cent., whereas the proportion in the quinquennium under review has been 20·8 per cent. of the total recruitment.

The total number of officers in the Indian Forest Service in March 1934 was as follows :—

(1) Europeans	189
(2) Indians	92
(3) Burmese	1

(b) *Provincial Forest Service*.—Except in Assam and Burma there has been no direct recruitment to the Provincial Forest Service during the period but each province made its own arrangements for recruiting the Provincial Forest Service by promoting suitable officers from the subordinate service.

(c) *Training of Rangers*.—As a temporary measure the Forest College at Dehra Dun for the training of forest rangers was closed down in October 1933 as sufficient number of students were not forthcoming. The College, however, has re-opened on the 1st of April 1935 with 27 students.

The number of students who obtained certificates during the period were as follows :—

1930	23
1931	13
1932	19
1933	9

Ranger students for Madras, Bihar and Orissa, the Central Provinces and parts of Southern India continued to be trained at the Forest College at Coimbatore.

5. *Forest Engineering Service*.—Fifteen officers in 1921 and three in 1922 were appointed to this service. Fourteen posts in the cadre of Burma, the United Provinces, Bihar and Orissa, Assam and Bengal have been abolished. This service is gradually dwindling and there are now only four posts in existence: one each in Bombay and Madras and two in the Punjab, one of the latter will be abolished as soon as the officer holding it is transferred to the Indian Service of Engineers.

Conservation and Improvement.

6. *Fire Protection*.—The area over which special fire protection was attempted shows an increase of 4,520 square miles or 10·7 per cent. in 1933-34 as compared with the figures for 1928-29. The percentage of forest protected during the five years under report was 41·5 per cent. on the average as against 40 per cent. in the previous quinquennium and the percentage of failure to area attempted has varied e.g., 6·5 per cent. in 1931-32 to 4·2 per cent. in 1932-33 and 4·6 per cent. in 1933-34.

7. *Grazing*.—During the year 1933-34 over 12,079,000 animals were provided with grazing in State forests of all classes and out of this 4,707,610 grazed free. The figures for 1928-29 were over 14,170,000 (4,889,000 grazed free) and for 1923-24 they were 13,300,000 (4,800,000 grazed free).

The economic depression is mainly responsible for the decrease in the number of cattle that grazed on payment of fees, except that in Bombay the decrease was partly due to admitting calves under eighteen months free of charge. The excessive number of cattle of poor breed admitted to the forests and consequent overgrazing in thickly populated areas still remains a conspicuous feature in the grazing system of this country with the result that both denudation and the resulting erosion are all too common phenomena of the outer hills of the Himalaya and the hilly regions of the Peninsula. It is a fact far too little known that India has suffered immense losses from this evil during the past century.

8. *Afforestation*.—The work of afforestation was seriously hampered owing to financial stringency.

In the United Provinces neither the Government nor the Zemindars were able to do much for want of funds. Considerable attention was given to Canal side plantations in co-operation with the Irrigation department.

No afforestation work was done in the Pabbi Hills for want of funds. As a result of the recommendations of the Erosion Committee the Punjab Government appointed a special officer to experiment in *Chh* training and reclamation work in Hoshiarpur and Ambala districts.

To stabilise shifting sand, some work was done in Madras where *Casuarina* plantations have been raised along the sea coast in Godavari Lower and Nellore, and Palmyra plantations have been raised in the Kudiramoliteri forests of Tinnevely.

9. *Plantations*.—The expenditure on plantations including tending averaged 9 lakhs per annum during the period under review.

The area under plantations in the Punjab rose from 19,894 acres in the previous quinquennium to 30,292 acres in the period under review.

In Assam particular attention has been given to the raising of soft woods used in the manufacture of matches and packing cases.

In the United Provinces artificial regeneration by *taungya* is becoming increasingly important and large areas are being stocked with more important species after clearfelling.

In the Andamans regeneration of deciduous forests by natural means has replaced the artificial methods of raising plantations.

The Government of India appointed a Committee consisting of the Inspector General of Forests, Chief Conservator of Forests, Bombay, and an expert Forest Officer from the Punjab to inspect the proposed areas for irrigated plantation in Sind. The Committee visited the locality in January 1935 and recommended 6,500 acres for conversion into irrigated plantations.

10. *Communications and Buildings*.—The expenditure under this head in the year 1928-29 was 37 lakhs and rose to above 75 lakhs in 1929-30, the opening year of the present quinquennium. Owing to the severe trade depression and the need for economy the expenditure under this head gradually fell away to 14 lakhs as work was confined to the barest minimum for the upkeep of roads and the repairs of buildings. All expenditure on new work was strictly limited to what was absolutely necessary for revenue purposes.

Exploitation and Commercial development.

11. *Outturn of Forest Produce*.—The average annual outturn of timber and fuel from all sources during the 5-year period under review was 322,000,000 cubic feet against an average of 347,800,000 cubic feet in the previous quinquennium. The decrease is due to the trade depression and economic causes. The outturn in the year 1929-30 was 350,200,000 cubic feet and this fell to 305,900,000 cubic feet in 1931-32 but rose again to 317,300,000 cubic feet in 1933-34 indicating a gradual improvement in the timber trade.

The trade in bamboos also suffered from the depression. The average value on this account was 19 lakhs in the previous quinquennium as compared with the average of 16 lakhs in the period under review. The value, however, was Rs. 18 lakhs and 14 lakhs in the years 1929-30 and 1933-34, the first and the last years of the present quinquennium respectively.

There was also a decrease in the value of grazing and extraction of fodder due to the general depression. The position in 1933-34 showed a definite improvement over the figures for 1931-32 and 1932-33.

The demand for other minor forest products was also poor during the quinquennium, the value being Rs. 33 lakhs in 1933-34 as compared with 60 lakhs in 1929-30. The figures for 1933-34 were, however, an improvement over 1932-33.

12. *Exploitation.*—In Madras mechanical exploitation of the evergreen forests of the West Coast, the portable saw mills and the seasoning plant established during the previous quinquennium for the fuller utilisation of the timbers hitherto unknown were found unremunerative and had to be closed down. Experience has shown that mechanical exploitation is not to be compared with indigenous methods which rely upon elephant power, floating and carting.

In the Andamans where extraction in the interior of the island with animal power was considered impossible mechanical extraction under the supervision of a logging engineer was sanctioned as a trial. After logging 1 square mile the skidder was found to be unprofitable and its use discontinued.

During the period under review departmental exploitation was considerably restricted and the sale of standing trees to contractors was more generally adopted as the most suitable method of disposing of forest produce.

In Assam the manufacture of tea boxes of plywood was continued by the mills. Considerable quantities of softwoods were exported for the manufacture of matches and packing cases.

In Burma more than one million teak trees were girdled during the 5-year period.

In Bombay the extraction of timber by Fordson skidding outfits was continued. Six saw mills worked during the period; 3 of them were closed for want of work and a new one was erected. All the mills shew good profits.

The Allapilli saw mill in the Central Provinces was reconstructed. The result has been an increase in the outturn of about 15,000 cubic feet per annum.

Agencies for the sale of timber.

13. The only agents with which the Government of India dealt were Messrs. Martin and Co. of Calcutta, who have been working as their agents for the sale of Andamans timber in the Calcutta market since 1st November 1918. On the expiry of the agency contract with the firm on the 31st March 1934 the agreement was renewed for another two years.

The appointment of Timber Adviser to the High Commissioner for India in connection with the trade in the Andamans and other Indian timbers in the London market was created in 1927 for one year and has since been extended from time to time. The present extension expires on the 31st March 1936.

The following figures compare the sale of timber from the Andamans during the present and the previous quinquennia :—

	Logs.	Squares.	Scantlings.	Total.
	Tons.	Tons.	Tons.	Tons.
Present quinquennium .	85,660	10,840	39,891	136,391
Previous quinquennium .	21,037	16,444	39,279	76,760

The increase under logs was due to purchases by the local match factory; the decrease under squares was chiefly due to the financial depression during which the Indian railways have curtailed purchases. The position of the trade in scantlings was satisfactory except for the prices which were seriously affected by the depression. Considerable competition has developed in the soft wood trade owing to the import of timbers from Japan at very low prices.

Forest Management.

14. *Working Plans.*—The percentage of the total forest area in British India which is now under working plans has risen from 57 per cent. in 1929-30, the beginning of the quinquennium, to 63.4 per cent. in 1933-34. The area

under working plans in 1928-29, the last year of the previous quinquennium, was 73,000 square miles against 83,000 square miles at the close of the present review. The principal additions were:—Burma 6,000 square miles; Assam 1,300 square miles and Madras 2,600 square miles.

15. *Panchayat and Forest Village Systems.*—At the end of the present 5-year period under review the total area under Panchayat management in Madras was 3,270 square miles as against 3,400 square miles in March 1929, the decrease being due to the inability of the people to form panchayats. It is as yet premature to say that management by Panchayat is satisfactory.

In Assam the policy of forming village forests was abandoned and those created were cancelled.

In the United Provinces there are now 20,000 acres of Panchayat forests, a considerable portion of which consists of plantations made by the villagers themselves at their own expence. The Kumaun Panchayat forest movement was initiated by the Forest department but is controlled by the Revenue department.

Financial Results.

16. The following statement shows the growth of forests revenue and expenditure during the past 70 years—the figures in all cases being the annual averages of the quinquennial periods:—

Quinquennial period.	Gross revenue (Average per annum).	Expenditure (Average per annum).	Surplus (Average per annum).	Percentage of surplus to gross revenue
	Lakhs.	Lakhs.	Lakhs.	
1864-65 to 1868-69	37 1	23 8	13 6	36 4
1869-70 to 1873-74	56 3	39 3	17 0	30 2
1874-75 to 1878-79	60 6	45 8	20 8	31 2
1879-80 to 1883-84	88 2	56 1	32 1	36 4
1884-85 to 1888-89	116 7	74 3	42 4	36 3
1889-90 to 1893-94	159 5	86 0	73 5	46 1
1894-95 to 1898-99	177 2	98 0	79 2	44 7
1899-00 to 1903-04	196 6	112 7	83 9	42 7
1904-05 to 1908-09	237 0	141 0	116 0	49 1
1909-10 to 1913-14	296 0	163 7	132 3	44 7
1914-15 to 1918-19	371 3	211 1	160 0	43 0
1919-20 to 1923-24	551 7	367 1	184 6	33 5
1924-25 to 1928-29	595 4	351 1	244 2	40 9
1929-30 to 1933-34	441 5	316 1	125 4	28 4

The continued fall in prices has further reduced the surplus, which stands somewhere about the prewar figures. If it is stabilised at this figure in the following quinquennium it will only indicate that we are returning towards more normal conditions.

The revenue of Burma (including Federated Shan States) alone has dropped from 2 crores in 1929-30 to 88 lakhs in 1933-34. In addition to the economic depression, this decrease may partly be attributed to the increased use of substitutes in place of hardwoods.

With the fall in revenue, the Forest department had also to curtail expenditure and is effecting all possible measures for economy. The policy of selling standing trees has been resorted to on a large scale and departmental operations restricted to the minimum; cadres have also been reduced considerably in most provinces.

Research.

17. *General*.—Research work which in the previous 5-year review was reported to be making great progress could not escape the effects of the world wide trade depression and the consequent financial difficulties of the Central and Provincial Governments. The work of the Forest Research Institute had to be curtailed and the staff reduced. In spite of this it has been possible to continue silvicultural research work both at Dehra and in the provinces. In other branches much useful work has been done which is dealt with more fully in the succeeding paragraphs.

A list of the publications issued by the Forest Research Institute during the 5-year period under review is given at the end of this report.

18. *Silviculture*.—The difficult financial position during most of the 5-year period resulted in a general curtailment of silvicultural work particularly as regards the relatively expensive departmental plantations and tending operations. Research work, however, was vigorously prosecuted in nearly all provinces, and despite the hampering effect of rigid economy, marked progress can be recorded in several directions.

Attention continued to be given to the regeneration both natural and artificial of tropical evergreen forests, valuable results being reported from Bengal, Assam and the Andamans. In Bengal, it has been demonstrated that *taungya* plantations with such representative species as *Dipterocarpus turbinatus* (*garjan*) and *Artocarpus chaplasha* are a practical proposition provided a soil cover crop is introduced at an early stage: more slowly growing species such as *Dichopsis* can probably be introduced in mixture, and there are indications that nurse crop of quick growing deciduous trees such as *Gmelina* may be useful. In the Andamans, excellent natural regeneration of *Terminalias* and other semi-deciduous species has been obtained by clearing the undergrowth, burning and thorough weeding, whilst in Assam, *Terminalia myriocarpa* has similarly been regenerated with some aid by sowing. In several places, the method of regenerating these forests by lightening the canopy from below upwards at a rate varying with local conditions, and sometimes with some aid by dibbling seed of desirable species (notably *Dipterocarpus* spp.) has been further established as capable of giving satisfactory results.

An important outstanding problem appears to have been solved in Madras in the successful restocking of second rotation teak plantations. The difficulties experienced there and elsewhere with pure plantations have directed attention to the need of a much wider knowledge of the technique of raising mixed plantations and a good deal of work in this field has been initiated.

The expansion of co-operative work between the Research Institute and the Provinces and Indian States has been a feature of the quinquennium, three major investigations having been taken up, i.e., the regeneration and management of sal forests (6 Provinces), the influence of seed origin for teak (8 Provinces and States), and bamboo management (5 Provinces). This has been associated with the steady improvement in experimental technique throughout the period.

The effect of thinning treatment on the total volume production and the growth of trees is a matter to which more and more attention is being directed with the rapid exhaustion of the older stock in all accessible forests. Yield tables were made for deodar under four intensities of thinning, representing the results of the first statistical study in this field in India. Research is now being concentrated on the growth statistics of unevenaged crops.

The Silvicultural Conference held in March 1929 provided a programme of research which has taken five years to deal with and a fourth conference was convened for October 1934. There have been two meetings of the Union of

Forest Research Stations at Stockholm (1929), and Nancy (1932), at both of which India was represented. The Silviculturist made a special tour of Forest Research Institutes in Europe in 1931 to collect the latest information on research methods and found that India was behind them only in the investigation of soil problems.

19. *Forest Economy*.—This Branch, which deals with such subjects as timber testing, wood technology, seasoning, wood preservation, woodworking, minor forest products, and paper pulp, has several important developments to record since the last report in 1928.

The Timber Testing Section has now tested 148 species of Indian woods under its ordinary strength test programme, and 87 species under the special programme for constructional woods. This work is of the utmost value to engineers and timber users generally throughout India, and has resulted in several instances in Indian woods being given preference over imported woods. One of the chief reasons why imported woods were previously preferred was the lack of information on the strength of Indian timbers. This drawback no longer exists and scientific data on practically all the commercial Indian timbers are now available for those requiring them.

Wood Technology has made great progress during the past few years, and timber users throughout India are recognising more and more the importance of obtaining scientific information about the woods they are handling. The number of enquiries received asking for advice on the suitability of timbers for various purposes, the cause of unusual defects such as extreme hardness, softness or weakness, and requests for fungus examination, now average over 300 per annum, while the number of requests for identification of wood samples have increased from about 60 in 1928 to 400 in 1934. An important little booklet entitled "The Identification of Important Indian Sleeper Woods" was published in 1932 and has proved of considerable value to railway engineers and others dealing in sleeper woods.

The Seasoning Section distinguished itself by developing a new technique for kiln seasoning. This new process has halved the time formerly taken for kiln drying and only costs about a third as much as former processes, while the timber comes out in better condition than it did formerly. There are now several commercial kiln seasoning plants in India and with this cheaper and better technique it is possible that there will be further additions to the number during the next few years. Air-seasoning also has made advances, and an air-seasoning Manual was published in 1934. This Manual is not only a general treatise on air-drying but also deals specifically with the air-seasoning of 120 Indian woods.

The Wood Preservation Section has done some exceedingly useful work in having evolved a method of fixing arsenic and copper in wood, thereby giving it a very much prolonged life against the ravages of termites, fungi and wood borers. The new process, known as the Ascu process, is a development of the Falkamesam process which aimed at fixing arsenic only in the wood. As copper is very toxic to wood destroying agencies, the combination is doubly effective. A new technique for treating heartwood and sapwood railway sleepers together at the same time has also reacted to the benefit of the Forest department and the Railways, by allowing sapwood to be included in sleeper specifications and at the same time cheapening the cost of treatment. Mr. Kamesam, who developed this new technique, was awarded the Viceroy's Prize of 1933 for his treatise on the subject.

In the Woodworking Section considerable advance has been made in the study of Indian woods for veneers and plywood, and a preliminary treatise on the subject was published in 1934. Several Indian woods have been found suitable for the manufacture of plywood tea boxes. The study of glues for Indian conditions has also taken up a considerable amount of time, and as a result of this work the Civil Aviation department has issued instructions to its ground engineers that no licence will be issued unless the applicant has passed the gluing test supervised by the Forest Research Institute. It is gratifying to note that the standard of gluing has, as a result of this, improved considerably.

during the past year or two. This has the effect of making the repair work of aircraft more dependable and flying safer.

The Minor Forest Products Section has been occupied chiefly with the development of a portable charcoal kiln suitable for Indian conditions and with the making of briquettes from charcoal dust combined with a suitable binder. An entirely new design of charcoal kiln has been evolved and is now available for those interested in this subject. One of the chief assets of this new kiln is that it can be used without water, a most important matter in those districts where charcoal burning is restricted to 3 or 4 months in a year on account of a lack of water. An intensive study of the more important forest drug producing plants has also been inaugurated, and should lead to an improvement in the cultivation, yield, and quality of these important products.

The Paper Pulp Section can record the completion of Mr Rutt's work on the utilisation of bamboo for paper pulp. The Section is now engaged in improving pulp technique and in evolving a cellulose from bamboo suitable for artificial silk manufacture. Success appears to be in sight but a little more work is necessary to make certain that the process is a commercial possibility. Other raw materials such as forest grasses, flax waste, and bagasse have also received their quota of attention, and those interested have been kept in touch with the progress made.

In conclusion, it can be definitely recorded that utilisation in forest products has made distinct advances in the past 5 years, and it has been very noticeable that both Government departments and the public have yearly taken more and more advantage of the valuable research work being done by this Branch of the Forest Research Institute.

20. *Forest Botany*.—During the period under review the systematic study of some genera of important timber trees has been undertaken and completed and much help has been given to Forest Officers and others in India and Burma in the identification of numerous plant specimens and in supplying technical advice in botanical matters. The herbarium at the Central Institute has been added to considerably from Indian collections and collections obtained by exchange with other botanical institutions. As usual considerable quantities of seed have been supplied to enquirers and institutions in various parts of the world. Tours have been made by the Forest Botanist and his staff in connection with the investigation of botanical problems, the collection of plant specimens and the identification of trees of forest importance. Planting in the arboretum at New Forest has been continued and many new and interesting plants established; a new botanical garden has been started which is intended to be used for technical, educational and ornamental purposes.

Mycology.—The problem of shisham mortality in the Punjab plantations and in the forests of the United Provinces has been investigated. Shisham trees have been inoculated with a fungus isolated from diseased and dying trees and also with cultures of *Polyporaceae*, fungi which are generally associated with dead trees, and the results watched. Good progress has been made in the investigation of various parasitic rusts as a result of which *Peridermium* on the stems of Chir pine has been co-related with a rust on *Swertia* and a *Peridermium* on the blue pine with a rust on *Ribes* while similar investigations on the needle diseases of other conifers have been undertaken. Studies relating to other wood rotting and parasitic fungi which infest important timber trees have also been undertaken and numerous inoculation experiments done on Pine and Deodar in the Chakrata forests.

21. *Forest Entomology*.—In entomological research the quinquennium has been marked by successful results in several of the major projects planned by Dr. Beeson for investigation on broad lines over a prolonged period.

Time has shown that the control measures devised for the sal borer, *Hoplocerambyx*, are effective, practical and inexpensive. They are adopted as standard measures, not only in the Central Provinces where they were first enforced in the great epidemic of 1927, but in all sal forests where this pest is a danger. The virtual elimination of *Hoplocerambyx* by these methods has raised the importance of the secondary borers of sal to a stage at which it is advisable to apply remedies. Damage by secondary borers has been studied and remedial

measures have been instituted that are at once effective and profitable. The comparative importance of insects and of other factors in the dying-off of sal can now be correctly estimated.

An extensive survey of the conditions governing the defoliation of teak has been conducted in various parts of India, but mainly in Nilambur. The complicated life-histories of the primary and secondary defoliators and their local divergences from the normal have been worked out. The host of associated natural enemies—predators and parasites—has been the subject of many careful breeding experiments and of taxonomic work by specialists. Dr. Beeson's scheme for the prevention of defoliation rejects entirely the use of insecticides and direct attack, and relies on biological control by the maintenance in a plantation of optimum conditions for natural enemies which is ensured by the retention of subsidiary plant growth.

In connection with the spike disease of sandal a comprehensive survey of the insect fauna of this tree was undertaken in Madras and Coorg for the identification of which the assistance of 35 specialists was secured. Out of these thousands of species a few were isolated as probable vectors of the disease and experimental evidence was obtained that incriminated a jassid bug as the primary agent of infection. At the time when unassailable proofs of transmission of the disease by an insect were being collected the special grant subsidising the research was terminated. Thirty-three publications were issued on this investigation.

Insects attacking the living culms as well as cut bamboos have been studied. Investigation of the life-histories of *Dinoderus* and the effect of the season of felling (and incidentally of the phases of the moon) showed that efficient protection is obtainable by improved methods of extraction and storage, as well as by antiseptic treatment. It was demonstrated that specifications for tent and telephone poles, lance staves and lathis are unnecessarily strict and can be modified with profit.

Borers of newly felled trees and of converted and manufactured timber, particularly pinhole and shot-hole borers, *Lyctus* and powder-post beetles, have received considerable attention. The problem of protecting the log remains a local one in view of the great diversity of India's borer fauna. In mills and factories, on the other hand, general hygienic principles are more universally applicable and have been successfully introduced to departmental and private concerns.

Seventy-four publications were issued by the Entomological Branch during the period, including Mr. Gardner's valuable reports on the immature stages of Indian insects.

22. *Chemistry*.—During the period of 5 years under review, apart from routine investigations, considerable progress has been made in the chemistry and utilisation of various minor forest products. Some of these have led to the development of a valuable trade in herbs and particular mention may be made of *Artemisia*, *Ephedra*, *Derris* and *Adhatoda vasica*. Indian species of *Artemisia* were, at one time, regarded as useless for the extraction of the valuable drug santonine; but the work carried on in this branch showed that some of the Indian species are as rich in santonine content as Russian species; which at one time held the monopoly. This had led to the development of a considerable export trade and establishment of a factory for the extraction of santonine in Kashmir. The same can be claimed for Indian *Ephedra* which only a few years back were practically unknown in foreign markets. Apart from the above, the isolation and chemical study of the active principles of many other indigenous drugs was taken up, especially *Actinodaphne hookeri*, *Adhatoda vasica*, *Putranjiva roxburghii* and *Aconitum chasmanthum*.

Oil bearing seeds of many forest trees have also been studied and a few items of economical value have been discovered; for instance an indigenous and rich source of lauric acid in the fats of the *Lauraceae*. The use of Lauric Acid and its derivatives as valuable detergents is now coming into prominence and already enquiries have been received for the collection of large quantities of berries.

Mention may also be made of the preparation, development and large scale manufacture of "Fridera" a composition for reconditioning the abraded spike holes in wooden sleepers. This composition has been patented and is now being used on many of the Indian Railways. The results of the above investigations have been embodied in 30 odd papers published in scientific journals and departmental publications.

Forestry Committee.

23. The recommendations of the Forestry Committee referred to in the last quinquennial review were duly considered by the Government of India and their decision on the various recommendations are detailed below :—

- (1) *Constitution of an Advisory Board.*—Owing to the prevailing financial stringency the constitution of the Advisory Board for the Forest Research Institute, Dehra Dun, was postponed and the Board of Forestry was allowed to continue.
- (2) *Enhancement of the powers of control of the President, Forest Research Institute.*—Powers of the Inspector General of Forests and President, Forest Research Institute and College, Dehra Dun, to sanction capital expenditure under Article 69(V) of the Forest Department Code (7th Edition) were raised from Rs. 5,000 to 10,000 and, subject to budget provision, he was also empowered to sanction the creation of temporary posts both at the Forest Research Institute and in his own office on pay not exceeding Rs. 100 per mensem.
- (3) *Appointment of a Director of Research.*—The consideration of the question of appointing a Director of Research was postponed for both financial reasons and constitutional considerations.
- (4) *Appointment of a Personal Assistant to the President.*—The recommendation to create the post of a Personal Assistant to the President of the Forest Research Institute has been given effect to.
- (5) *Centralisation of Branch Offices.*—The recommendation was given effect to and all Branch Offices were centralised except the office of the Forest Economist which was allowed to function separately.
- (6) *Methods of recruitment of Sectional officers and subordinates.*—As regards improvements in methods of recruitment and training of staff for scientific research at the Forest Research Institute suggested by the Committee the Government of India after careful consideration decided not to prescribe any general rule. The detailed recommendations of the Committee in this respect were however carefully considered and decisions recorded.
- (7) *Necessity for training officers abroad.*—The Government of India already have a definite policy for sending their officers for special training abroad whenever it is necessary. As this policy has so far worked satisfactorily it was decided not to make any modifications in it.

Maintenance of touch with Forest Officers in Provinces and Railways, etc.—As the Economic Branch of the Forest Research Institute is already in close touch with the Railways no further action in that direction was considered necessary.

The suggestions made by the Forestry Committee that provincial silviculturists and Working-plan Conservators should visit Dehra Dun at least once in every two years and that provincial officers even if they are not definitely engaged in research work should be encouraged to visit the Institute in order to gain some idea of the scope of work done at Dehra Dun were commended to local Governments for consideration and accepted by most of them. At the meeting of the Board of Forestry held in October 1934, it was

stressed that officers of the Forest Research Institute should also be afforded full facilities for touring in the provinces with a view to gaining first hand experience of local conditions and disseminating information among the administrative and executive staff.

Protection of the Fauna of the Country.

24. A greater interest was evinced in the protection of the Fauna of British India and Burma during the five-year period in various provinces.

In Bengal the Rhinoceros and Elephant Preservation Acts of 1932 were promulgated. In Assam the Rhinoceros is effectively protected.

In the Punjab rules under the Wild Birds and Wild Animals Protection Act, 1933, have been framed and brought into force. A bill to establish a permanent sanctuary in the United Provinces is under consideration in the local legislature.

The aggregate area of game sanctuaries in Burma and the Federated Shan States was 516 square miles at the close of the present period of review. Owing to financial stringency the post of Game Warden was abolished but substantial progress in the control of firearms and ammunition was effected.

In Madras radical changes in shooting rules are under the consideration of the local Government. A bill to provide protection to wild animals is also being introduced in the Central Provinces' legislature.

As an outcome of the agreements concluded at the International Conference for the protection of the Fauna and Flora of Africa which was held in London in November 1933, the Government of India convened a Conference in January 1935 in which all provinces of India and principal Indian States participated. The Conference among others considered the following important items :—

- (1) The present position of the Fauna and Flora of India with a view to consider their protection in and outside forests.
- (2) Inoculation of village cattle in the vicinity of game preserves.
- (3) Measures to restrict the possession of weapons.

A draft convention has accordingly been drawn up and will be circulated for criticisms.

On the whole there is greater awakening both on the part of the general public and the Government to this very important question and considerable progress may be looked forward in the near future.

C. G. TREVOR,

Inspector-General of Forests

to the Government of India.

NEW FOREST, DEHRA DUN ; }

The 27th April, 1935. }

*List of Forest Publications issued by the Forest Research Institute, Dehra Dun,
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	Price (exclusive of pack- ing, postage, etc.)		
	Rs.	A.	P.
Forest College, Dehra Dun, Calendar, 1931	5	2	0
The Progress Report of Forest Research Work in India, 1928-29 .	4	6	0
The „ „ „ „ „ „ „ 1929-30 .	4	6	0
The „ „ „ „ „ „ „ 1930-31 .	6	10	0
The Progress of Forest Research in India, 1931-32, Part I.—The Forest Research Institute.	2	0	0
The Progress of Forest Research in India, 1931-32, Part II.—Pro- vincial Reports.	2	14	0
The Progress of Forest Research in India, 1932-33, Part I.—The Forest Research Institute.	2	0	0
The Progress of Forest Research in India, 1932-33, Part II.—Pro- vincial Reports.	2	0	0
Progress Report of the Imperial Forest College, Dehra Dun, for 1928-29.	1	0	0
„ „ „ „ „ „ „ „ 1929-30.	1	8	0
„ „ „ „ „ „ „ „ 1930-31.	1	12	0
Progress Report of the Indian Forest Service and Forest Rangers Colleges, Dehra Dun, for 1931-32.	1	0	0
Progress Report of the Forest College, Dehra Dun, for 1932-33 .	0	12	0
Annual Return of Statistics relating to Forest Administration in British India, for 1928-29.	10	0	0
Annual Return of Statistics relating to Forest Administration in British India, for 1929-30.	1	8	0
Annual Return of Statistics relating to Forest Administration in British India, for 1930-31.	1	11	0
Annual Return of Statistics relating to Forest Administration in British India, for 1931-32.	1	12	0
Annual Return of Statistics relating to Forest Administration in British India, for 1932-33.	1	14	0
Classified List of Officers of the Indian and Provincial Forest Services and of the Forest Engineering Service in India and Burma on 1st July 1929.	...		
Classified List of Officers of the Indian and Provincial Forest Services and of the Forest Engineering Service in India and Burma on 1st July 1930.	...		
Classified List of Officers of the Indian and Provincial Forest Services and of the Forest Engineering Service in India and Burma on 1st July 1931.	4	0	0
Classified List of Officers of the Indian and Provincial Forest Services and of the Forest Engineering Service in India and Burma on 1st July 1932.	4	10	0
Classified List of Officers of the Indian and Provincial Forest Services and of the Forest Engineering Service in India and Burma on 1st July 1933.	4	4	0
The Common Commercial Timbers of India and their Uses, by H. Trotter.	1	12	0
The Forest Research Institute Guide	0	3	0
Forty Trees Common in India, by R. N. Parker	3	6	0
Tables for use with Brandis' Hypsometer for measuring the height of Trees, etc., by F. B. Manson and H. H. Haines.	0	10	0

STATEMENT I.

Area of forests under the control of the Forest Department.

Province.		Forest area in square miles.				Percentage of forests to whole area of Province	Remarks.
Name.	Area in square miles.	Reserved.	Protected.	Unclassed State.	Total.		
1	2	3	4	5	6	7	8
Bengal	75,857	6,489	705 [*]	3,115	10,639	14	
United Provinces . .	106,014	(a) 5,185	4	52	5,211	4.9	(a) Includes 1 square mile of leased forests.
Punjab	95,315	(b) 1,531	(c) 3,207	(d) 455	5,193	5.4	(b) Includes 816 square miles of leased forests but excludes 501 square miles of reserved forests not under the control of the Forest Department. (c) Excludes 63 square miles not under the control of the Forest Department.
Burma	182,000	31,533	...	91,538	128,371	67.1	(d) Excludes 235 square miles of civil forest and village forest lands
Federated Shan States .	60,615	3,189	...	56,358	59,547	98.2	
Bihar and Orissa . .	83,021	(e) 1,819	(f) 1,156	(g) 7	3,012	3.6	(e) Excludes 284 square miles belonging to private estates under their own management
Assam	55,445	6,630	...	14,818	21,448	38.7	(f) Excludes 691 square miles under the Civil Department and 102 square miles belonging to private owners. (g) Excludes 121 square miles belonging to private individuals under negotiation with a view to reservation or protection.
Central Provinces (including Berar).	99,937	(h) 19,430	...	...	19,430	19.4	(h) Excludes 174 square miles of leased forests.
Coorg	1,593	519	337	...	866	53.7	
North-West Frontier Province.	13,183	245	105	...	350	2.6	
Ajmer-Merwara . . .	2,767	142	...	...	142	5.1	
Baluchistan (portions under British Administration)	54,223†	316	...	472	788	1.5	
Andamans and Nicobar .	3,143†	52	...	2,137	2,189	69.6	
Madras	142,218	15,652	(i) 621	...	16,273	11.4	(i) Represents reserved and leased lands.
Bombay (including Sind) .	123,217	18,317	868	...	(j) 14,185	11.5	(j) Includes 2,279 square miles of reserved and protected forests not under the management of the Forest Department.
Total 1933-34 .	1,099,503*	106,079	7,003	169,582	282,664	25.7	
„ 1932-32 .	1,099,511*	106,179	7,212	147,828	261,219	23.7	
„ 1931-32 .	1,101,902*	105,960	6,632	133,189	245,831	22.3	
„ 1930-31 .	1,102,595*	107,753	6,263	135,694	249,710	22.6	
„ 1929-30 .	1,108,486*	107,853	6,298	135,503	249,654	22.6	

* Excluding Delhi Province and Pargana Manpur.

† Figures taken from the Census Report of 1931.

... ..

1	2	3	4	5	6	7
...	11	19	...	...	...	...
...	7	1	...	...	...	...
...	...	7	...	...	...	...
...	37	471	...	...	...	...
...
...	...	37	27	...	...	...
...	84	100	...	...	...	...
...	1	3	...	...	...	...
...
...	...	20	...	...	...	...
...
...
...	...	59	...	...	...	...
...	17	187	110	No information available		...
...	9	47	4	19	...	...
...	120	250	173	37	...	...
...	85	1777	2-3	671	...	...
...	175	2975	400	21,000	...	...
...	300	4,500	52	10,000	...	...
...	14	277	2,000	20,000	...	...

STATEMENT III.

Demarcation and maintenance of boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year	Length of natural boundaries not requiring artificial marks	Total length of boundaries at the close of the year	Expenditure on demarcation during the year.	
								On new work	On repairs.
1	2	3	4	5	6	7	8	9	10
		Miles.	Miles.	Miles	Miles	Miles	Miles.	Rs.	Rs
Bengal	416	1,005	2,004	3,455	34	1,336	4,875	7,083	7,831
United Provinces . .	22	3,031	5,629	8,682	2	2,881	11,568	1,259	14,890
Punjab	"	1,730	7,114	8,844	1	1,268	10,113	"	6,819
Burma	308	1,852	15,592	17,752	226	4,000	21,978	4,218	13,515
Federated Shan States		73	1,200	1,333	"	590	1,923	"	671
Bihar and Orissa . .	3	3,672	1,192	4,667	"	358	5,225	9	3,921
Assam	24	1,542	1,219	2,785	99	2,592	5,476	"	8,010
Central Provinces . .	3	3,475	29,415	32,893	"	3,517	36,410	12	6,507
Coorg	"	24	445	469	"	67	536	"	763
North-West Frontier Province.	41	208	569	818	"	139	957	908	1,713
Ajmer	10	13	216	239	"	153	397	150	50
Baluchistan	23	432		460	"	77	537	"	149
Andamans	"	"	"	"	36	23	59	"	"
Madras	189	20,576	2,401	23,168	2,590	2,267	28,025	4,196	10,376
Bombay	106	24,876	13,016	37,993	45	2,627	40,670	1,519	2,327
1933-31	1,180	62,511	80,072	143,763	3,038	21,933	168,749	19,411	77,102
1932-33	759	61,613	80,999	143,371	1,202	21,823	166,396	18,931	73,217
1931-32	771	57,263	85,085	143,119	1,422	21,855	166,096	17,630	62,692
1930-31	1,162	61,080	79,318	142,486	731	21,463	161,679	32,161	1,08,140
1929-30	1,173	61,199	78,678	140,860	937	21,045	162,806	17,974	1,03,363

STATEMENT IV.

Forest survey operations from 1st April 1933 to 31st March 1934.

FOREST SURVEY									
Province.	Forest surveyed	Nature of survey operations				Total area of detail survey.		Expenditure of the year including mapping charges debitable to "Forests".	Remarks
		1"		4"		1933 34	Total up to date		
		Detail survey	Detail survey	Area	Cost rate				
1	2	3	4	5	6	7	8	9	10
								Rs. A. P.	
Ajmer . .	...	...	..	...	..	...	172-04	.....
Andamans .	...	.		...	...	...	527 00	.....
Assam . .	...	...	..	...	..	...	5,891 62	.....
Baluchistan .	...	...	.	.	.	.	249 90	.....
Bengal . .	Chittagong Hill Tracts	201 25	..	..	..	(a) 201-25	5,540 47	... ..	(a) Ordinary surveys not paid for by Forest Department
Bihar and Orissa.	Sambalpur East . .	73 15	.	...	..	(b) 73 15	2,553 42	.. .	(b) Ditto.
Bombay . .	.	...	...	..	...	...	18,232 90	... .
Burma . .	Upper Chindwin .	38-93	...	.	...	(c) 38-93	23,049-13	.....	(c), (d), (e), (f) Cost of surveys not debitable to "Forests".
	Lower " . .	136 28	..	...	..	(d) 136 28			
	Myittha . .	390 44	..	...	..	(e) 390 44			
	Yaw . .	116 68	.	.	...	(f) 116 68			
Central Provinces.	Pro- ...	...	...	...	...	...	19,636 30	.....
Coorg . .	...	...	..	...	...	...	479-00	.....

STATEMENT IV—*contd.*Forest survey operations from 1st April 1933 to 31st March 1934—*contd.*

Province.	Forest surveyed.	Nature of survey operations.				Total area of detail survey.		Expenditure of the year including mapping charges debitable to "Forests".	Remarks.	
		1'		4'		1933-34.	Total up to date.			
		Detail survey		Detail survey.						
1	2	Area	Cost ratio	Area	Cost ratio.	7	8	9	10	
		3	4	5	6					
India . . .	...	...	.	...	...	...	...	Rs. A. P.	
Madras . . .	...	...	...	.	..	.	18,216.57	.....	
N.-W. F. P. . .	...	...	...	...	...	...	465 00	.....	
Punjab . . .	...	...	.	...	...	...	4,885 00	.....	
United Provinces.	...	...	...	...	...	...	7,142 70	.....	
									Contributions to Forest Map Office by Provincial and Central Governments (after emergency cut).	
									Rs. A. P.	Rs.
TOTAL 1933-34	1st April 1933 to 31st March 1934.	960.78	...	...	...	960 73	106,510 05	.. ..	40,560
" 1932-33	1st April 1932 to 31st March 1933.	402.55	..	...	...	402 55	105,879 32	.....	41,982
" 1931-32	1st April 1931 to 31st March 1932.	478.51	...	3.79	...	482.33	105,176.77	5,826 0 0	46,000	
" 1930-31	1st April 1930 to 31st March 1931.	...	...	362.23	...	362.23	101,694.44	2,58,001 0 0	46,000
" 1929-30	1st April 1929 to 31st March 1930.	1,401.73	—	500.75	...	1,762.48	101,372.21	2,44,091 0 0	36,000	

STATEMENT V.

Progress made in working plans.

Province	Area under sanctioned working plans					Area not under working plans.			Total forest area in Statement I. (Total of columns 5, 7, 8 and 9)	Revisions			
	At commencement of the year	Added during the year	Deducted during the year	At close of year		Plans under preparation.	Plans not under preparation.			Duo or required.	In progress at the end of the year	Revised plans sanctioned during the year	Expenditure on working plans during the year
				Actual area	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Sq. m.	Sq. m.	Sq. m.	Sq. m.		Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.
Bengal	6,763			6,763	63.6	1	111	3,761	10,639		105	..	..
United Provinces	5,206	175	177	5,204	99.3	13	5	19	5,241	..	1,630	713	1,09,478
Punjab	2,330	23	24	2,379	46	134	..	2,650	5,193	..	1,261	..	2,718
Burma	24,971	121	111	24,957	79	956	1,296	4,254	(a) 31,533	..	4,371	..	..
Federated Shan States	1,373	..	..	1,373	43	261	21	1,528	(a) 3,169	..	812	..	..
Bihar and Orissa	2,230	169	14	2,391	79.18	..	10	608	3,012	92	955	..	1,235
Assam	1,508	..	..	1,508	7	629	2,410	16,901	21,448	3	15	..	..
Central Provinces	17,615	4	3	17,616	90	869	23	952	(b) 19,430	..	3,610	513	50,436
Coorg	169	..	..	169	19.7	..	..	687	854	..	..	..	130
North West Frontier Province	215	..	..	215	70	..	..	105	350	..	..	..	..
Ajmer	112	..	..	112	100	..	..	..	112	..	..	..	..
Baluchistan . . . . .	..	..	..	..	..	..	..	788	788	..	..	..	..
Andamans	705	..	..	705	32.31	..	..	1,451	2,169	..	(c) 703	..	37,158
Madras	10,171	1,094	..	11,365	70	2,825	2,050	..	16,273	..	..	..	..
Pombay	8,975	251	753	8,191	71	520	277	2,637	(d) 17,925	1,281	2,478	375	7,716
TOTAL 1933-34	82,561	1,873	1,087	83,347	63.04	6,161	6,239	36,451	132,208	1,376	16,209	1,541	2,09,361
" 1932-33	79,177	3,891	754	82,614	62.3	6,262	6,992	35,642	132,559	1,759	11,421	8,476	1,23,643
" 1931-32	76,134	3,235	711	79,658	59.2	6,615	10,397	135,673	134,516	1,198	15,825	3,145	2,01,574
" 1930-31	74,092	2,015	115	76,162	57.5	12,632	11,192	132,163	132,175	1,718	16,890	1,586	1,24,931
" 1929-30	71,111	3,975	771	74,318	57.1	11,860	9,361	34,186	30,307	3,796	15,561	1,937	1,25,877

(a) Excludes undesignated forests.

(b) Excludes 171 square miles of leased forests.

(c) The area given is that of the old working plans. The exact area that will be included in the new working plans is not yet known.

(d) Excludes 2,230 square miles not under the management of the Forest Department.

STATEMENT VI.

Expenditure on communications and buildings.

Province.	New Works		Repairs.		Other Works	Total.
	Buildings.	Roads and paths.	Buildings.	Roads and paths		
	2	3	4	5	6	7
1	Rs	Rs	Rs.	Rs	Rs.	Rs.
Bengal	9,235	256	36,811	33,522	9,442	89,265
United Provinces	10,881	5,212	87,039	98,578	17,062	2,19,012
Punjab	12,630	10,951	21,177	22,686	6,515	73,992
Burma	2,468	2,513	72,286	1,11,321	7,576	1,96,167
Federated Shan States	500	...	2,788	2,097	896	6,261
Bihar and Orissa	3,072	2,916	27,611	30,521	4,228	68,378
Assam	10,863	2,391	36,425	51,601	17,303	1,18,523
Central Provinces . . . . .	...	...	60,237	1,01,734	8,399	1,70,360
Coorg	94	...	3,492	4,772	1,678	9,976
North-West Frontier Province	906	...	6,598	17,937	2,023	27,464
Ajmer . . . . .	...	..	499	965	34	1,498
Baluchistan . . . . .	...	...	550	72	20	642
Andamans . . . . .	...	...	5,550	10	10,882	16,442
Madras	16,611	10,377	58,139	88,892	3,509	1,77,498
Bombay	32,715	26,070	21,175	88,584	9,235	1,80,789
Total 1933-34	99,915	60,715	4,43,297	6,53,535	98,855	13,56,317
" 1932-33	1,01,867	1,07,650	4,28,655	6,91,261	1,06,801	14,39,267
" 1931-32	1,67,776	1,71,830	4,42,278	7,78,561	1,55,362	17,16,907
" 1930-31	30,23,497	21,98,826	4,75,776	7,63,718	3,39,036	68,00,793
" 1929-30	32,73,522	22,91,038	5,90,180	10,23,334	3,74,595	75,56,269

STATEMENT VII.

Breaches of forest rules.

Province		Cases pending from 1932-33.	New Cases of the year					Total cases.	Disposed of during the year.						Cases pending at close of year.
			Injury to forest by fire	Unauthorized felling or appropriation of wood and minor forest produce	Grazing without permission, or in tracts in which grazing is prohibited	Other offences	Total new cases of the year.		Convictions		Acquittals.		Total.		
									Cases	Persons	Cases.	Persons.	Cases	Persons	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
Bengal	A.	195	2	419	31	104	786	781	364	857	38	111	402	968	226
	B.	267	10	2,548	2,181	1,658	6,397	6,664	6,524	11,543	16	49	6,540	11,592	118
	C.	...	74	312	1	50	437	437	...	...	..	..	..	...	...
	Total	462	86	3,309	2,213	1,812	7,420	7,882	6,888	12,400	54	160	6,043	12,560	444
United Provinces	A.	88	...	38	30	41	112	200	132	330	21	74	153	404	53
	B.	796	32	1,614	1,850	1,168	4,661	5,460	4,287	11,647	310	560	4,627	12,207	827
	C.	.	61	119	35	23	271	271	..	..	..	..	...	..	...
	Total	884	96	1,801	1,915	1,235	5,047	5,931	4,419	11,977	361	634	4,780	12,611	890
Punjab	A.	1,314	4	653	161	322	1,518	2,632	1,003	1,705	114	293	1,117	2,093	235
	B.	668	25	2,815	5,184	2,877	10,901	11,569	11,183	14,639	1	2	11,184	14,641	400
	C.	...	53	56	55	34	199	199	...	...	..	...	...	...	...
	Total	2,282	82	3,529	5,701	3,303	12,618	14,000	12,186	16,431	115	300	12,301	16,734	1,335
Burma	A.	1,015	1	1,056	21	305	1,413	2,425	1,650	2,251	177	407	1,827	2,658	...
	B.	1,498	1	8,075	349	1,896	10,821	11,819	10,016	12,179	...	...	10,016	12,179	...
	C.	...	2	113	1	13	128	128	..	..	...	..	..	..	..
	Total	2,513	4	9,274	371	2,213	11,862	14,372	11,666	14,430	177	407	11,843	14,837	1,655
Federated Shan States.	A.	9	1	18	..	...	19	28	17	19	..	1	17	20	...
	B.	33	...	150	16	48	226	258	147	163	..	..	147	163	...
	C.	.	..	5	.	1	6	6	...	..	..	...	..	..	..
	Total	42	1	183	16	49	259	292	164	182	..	1	164	183	40
Bihar and Orissa	A.	55	4	256	48	53	361	396	277	610	27	99	304	709	79
	B.	116	8	3,750	651	184	4,590	4,708	4,387	12,164	..	...	4,367	12,181	223
	C.	...	133	18	...	..	166	156	...	..	..	..	...	...	...
	Total	171	147	4,024	699	237	5,107	5,260	4,664	12,794	27	99	4,691	12,893	317
Assam	A.	142	2	210	22	162	396	535	323	723	58	163	381	861	157
	B.	236	.	1,247	92	594	1,933	2,169	1,847	3,139	71	267	1,918	3,406	251
	C.	.	...	..	..	..	..	..	..	..	..	..	...	..	..
	Total	378	2	1,457	114	756	2,329	2,707	2,170	3,867	129	420	2,299	4,267	408
Central Provinces	A.	89	3	104	152	50	309	359	238	598	76	319	814	917	75
	B.	3,395	135	10,850	12,129	1,486	21,600	28,495	23,612	61,219	1,189	2,503	21,801	63,722	3,694
	C.	...	372	1,158	265	53	2,145	2,118	...	...	..	..	...	..	..
	Total	3,976	510	12,412	12,546	1,589	27,057	31,032	23,650	61,817	1,265	2,823	23,715	64,639	3,769
Coorg	A.	2	...	2	1	1	1	6	2	2	...	..	2	2	4
	B.	...	..	10	21	5	39	39	36	67	3	13	39	80	..
	C.	...	..	2	31	..	3	3	...	...	..	..	..	..	..
	Total	2	..	14	26	6	46	48	38	69	3	16	41	82	4
North-West Frontier Provinces	A.	352	8	372	576	173	928	1,274	845	767	303	314	438	1,051	810
	B.	323	..	991	1,693	433	3,120	3,843	2,853	4,376	..	..	2,853	4,376	612
	C.	...	18	..	..	..	19	19	...	...	..	..	...	..	..
	Total	1,075	26	1,367	2,069	606	4,067	5,137	4,198	5,143	..	314	3,291	5,457	1,422

STATEMENT VII—*contd.*Breaches of forest rules—*contd.*

Province.		Cases pending from 1932-33.	New Cases of the year					Total cases.	Disposed of during the year						
			Injury to forest by fire	Unauthorized felling or appropriation of wood and minor forest produce	Grazing without permission or in tracts in which grazing is prohibited	Other offences	Total new cases of the year.		Convictions		Acquittals.		Total.		Cases pending at close of year.
									Cases	Persons.	Cases.	Persons.	Cases.	Persons	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ajmer	A.	8	3	35	63	11	132	110	106	172	14	30	120	203	20
	B.	...	7	596	1,610	32	2,275	2,275	2,275	4,236	...	...	2,275	1,236	...
	C.	..	...	...	...	...	...	...	..	...	..	...	..	...	...
	Total	8	10	631	1,723	43	2,407	2,415	2,381	4,409	14	30	2,395	1,436	20
Baluchistan	A.	7	...	30	16	1	47	54	39	60	1	...	40	80	14
	B.	...	1	73	199	...	273	273	273	363	...	...	273	363	...
	C.	..	...	..	..	...	..	..	...	...	..	...	..	...	...
	Total	7	1	103	215	1	320	327	312	413	1	..	313	413	14
Andamans	A	...	..	1	...	3	4	4	3	1	1	1	4	5	...
	B	...	...	13	...	2	15	15	11	14	1	1	15	15	...
	C.	..	..	...	..	..	...	..	...	..	..	..	...	...	...
	Total	..	...	14	...	5	19	19	17	18	2	2	19	20	..
Madras	A.	3,134	58	7,701	1,165	541	9,765	12,899	4,611	11,623	5,723	13,078	10,367	21,701	2,532
	B.	1,121	184	14,204	2,054	1,630	18,972	23,096	15,711	31,065	2,137	4,592	17,549	35,007	5,219
	C.	...	1,407	404	61	4	1,879	...	..	...	...	...	..	...	...
	Total	7,285	1,649	22,009	4,453	2,175	30,616	35,995	20,355	42,688	7,860	17,670	28,215	60,858	7,780
Bombay	A	126	22	164	73	41	390	426	292	607	37	181	329	768	97
	B.	1,630	223	9,578	6,537	2,716	19,054	20,684	18,877	16,031	1	1	18,878	46,032	1,800
	C.	63	1,722	1,559	24	97	3,402	3,495	...	..	...	...	...	...	...
	Total	1,819	1,967	11,301	6,634	2,854	22,756	24,605	19,169	46,638	38	182	19,207	46,820	1,903
GRAND TOTAL	A	6,504	103	11,124	2,781	1,661	16,890	22,303	9,195	20,443	6,380	15,066	15,815	35,509	5,102
	B.	11,285	623	56,526	35,501	11,729	107,370	121,667	102,042	212,865	3,759	7,058	105,801	220,833	13,194
	C.	93	3,850	4,077	447	274	8,648	6,862	..	...	...	...	..	...	...
Total 1933-34		20,885	4,576	71,727	38,729	16,894	131,810	150,021	111,477	233,308	10,139	23,054	121,616	256,369	20,101
" 1932-33		18,177	5,128	70,315	36,577	16,835	123,853	137,070	104,473	211,227	10,453	21,802	111,956	238,429	18,405
" 1931-32		17,985	1,047	63,399	36,628	14,790	119,792	136,710	99,775	207,057	9,625	20,864	107,690	227,021	17,677
" 1930-31		12,280	4,547	43,756	33,620	12,622	110,814	125,059	69,783	191,845	7,571	18,593	97,657	210,740	16,734
" 1929-30		16,710	4,400	57,959	33,994	15,857	110,112	120,025	97,718	106,182	5,390	11,670	102,652	211,002	11,722

N.B.—A. Cases taken into Court.

B. Cases compounded.

C. Undetected cases.

STATEMENT VIII.

Area protected from fire.

Province.	Area in square miles.		Percentage of forests under fire protection to total area of reserves	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected		Average of past five years to 1932-33.	1933-34.	
1	2	3	4	5	6	7
Bengal	1,747	1,730	21.3	0.9	0.97	
United Provinces	4,419	4,391	85.2	6.3	5.6	
Punjab	919	911	19.1	2.1	0.87	
Burma	145	133	3	6.7	4.14	
Federated Shan States	3	3	1.1	17.6	—	
Bihar and Orissa	1,904	1,761	65.5	8.2	7.6	
Assam	22	21	3	13.3	1.5	
Central Provinces	14,252	13,694	73.5	4.4	4.2	
Coorg	230	228	26.0	1.29	1	
North-West Frontier Province	115	125	12.3	4.1	2.66	
Ajmer	112	111	100	4.3	2.1	
Madras	15,231	14,466	63.5	5.7	5.01	
Bombay	9,317	8,657	65.7	6	7.05	
Total 1931-32	46,613	46,293	42.9	4.9	4.6	
" 1932-33	46,843	44,879	42.3	4.7	4.2	
" 1931-32	46,271	43,276	40.8	4.3	3.6	
" 1930-31	45,839	43,462	40.7	3.9	4.3	
" 1929-30	46,178	43,907	40.0	3.6	4.7	

STATEMENT IX.

Causes of forest fires.

Province.	Fires originating in departmental fire conservancy operations		External fires crossing the fire traces		Fires due to carelessness of outsiders.		Fires originating from intention or malice		Fires due to unknown causes.		Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13
	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.
Bengal	2	...	3	...	33	7	3	...	28	9	60	16
United Provinces	16	2	21	4	38	1	1	...	68	18	133	25
Punjab	6	.	9	2	74	2	8	4	3	...	99	8
Burma	10	351	14	659	12	253	.	...	33	2,710	60	3,003
Federated Shap States . . . . .	...	...	...	...	1	2	2	58	1	6	4	66
Bihar and Orissa	7	1	20	23	22	41	27	21	131	65	213	152
Assam	1	..	3	..	16	1	12	131	.	.	31	132
Central Provinces	92	44	143	112	163	89	21	13	480	341	890	695
Coorg	7	..	3	...	7	1	.	...	16	2	32	3
North-West Frontier Province . . . . .	...	...	1	2	10	...	7	1	3	...	21	3
Ajmer . . . . .	..	..	...	...	10	...	...	...	1	...	11	...
Baluchistan . . . . .	...	...	...	...	1	1	.	..	...	..	1	1
Andamans . . . . .	...	..	...	...	...	...	.	..	...	.	...	...
Madras	47	4	200	73	1,077	66	93	35	967	199	2,380	707
Bombay	63	37	110	69	560	210	216	46	1,013	301	1,968	676
TOTAL 1933-34	245	330	533	911	2,020	693	300	300	2,533	4,074	5,030	6,349
" 1932-33	186	393	550	424	1,000	2,713	721	786	2,503	1,074	5,560	3,270
" 1931-32	150	83	610	1,337	1,320	4,930	837	8,117	2,800	2,670	6,313	15,655
" 1930-31	111	146	509	301	1,258	332	675	467	2,007	278	5,200	2,077
" 1929-30	790	179	682	413	1,360	458	580	852	1,262	23	5,487	7,804

STATEMENT X.

Area closed and open to grazing.

Area in Square Miles.							
Province.	Closed to all animals.		Open to grazing.				Total area as shown in Statement No I (Col. 6.).
	Whole year.	Part of year.	Of all animals.		Of all animals except browsers (camels, sheep and goats).		
			Whole year.	Part of year.	Whole year.	Part of year.	
1	2	3	4	5	6	7	8
Bengal	6,234	...	4,279	...	63	63	10,639
United Provinces	1,971	68	2,281	22	843	56	5,241
Punjab	450	26	4,105	110	385	117	5,193
Barma	21,086	...	91	221	2,639	4,513	123,371
Federated Shan States	2,308	...	...	...	745	136	59,547
Bihar and Orissa	609	...	607	1	1,427	361	3,013
Assam	5,150	...	14,715	...	1,583	...	21,443
Central Provinces	2,272	265	3,758	...	13,135	224	19,430
Coorg	80	439	...	...	...	439	556
North-West Frontier Province	66	...	93	...	191	...	350
Ajmer	53	86	3	...	...	86	142
Baluchistan	675	...	83	20	1	9	783
Andamans	52	...	...	...	358	...	2,169
Madras	1,959	196	10,891	5	9	3,210	16,273
Bombay	1,309	313	2,917	...	(a) 9,536	12	14,185
1933-34	47,344	1,893	43,826	382	30,915	9,232	2,82,664
1932-33	47,552	1,441	43,055	475	34,430	11,494	2,61,219
1931-32	46,629	1,337	46,989	438	31,408	5,610	2,45,931
1930-31	45,177	1,223	47,294	487	31,256	5,695	2,49,710
1929-30	44,819	1,030	46,303	586	31,292	5,932	2,49,154
TOTAL							

(a) Excluding an area of 2 sq miles submerged in the Bhandardara lake.

STATEMENT XI.
Protection from Cattle.

STATE
Protection

Province.	Grazed on payment, number of animals									
	At full rates					At privileged rates.				
	Buffaloes	Cows and bullocks	Goats and sheep.	Camels.	Other animals	Buffaloes	Cows and bullocks	Goats and sheep	Camels.	Other animals
	2	3	4	5	6	7	8	9	10	11
1										
Bengal	2,669	37,497	296	...	49	76	1,809	...	...	7
United Provinces	50,427	144,255	102,293	1,700	1,873	5,623	23,087	21,495	...	149
Punjab	8,137	15,049	129,506	15,038	173	809	9,339	111,908	...	104
Burma	1,048	24,102	.	*50	...	...	144	..	...	...
Federated Shan States	3,170	597	..	...	103	...	.	...	...	...
Bihar and Orissa	3,538	16,763	1,203		110	4,891	11,845	..	...	...
Assam	10,503	5,371	412	..	96	565	403	...	.	...
Central Provinces	213,578	722,574	322,545	18	3,602	100,970	1,711,657	2,551	..	79
Coorg	260	2,964	...	..	...	..	...	...	...	...
North-West Frontier Province	1,722	2,429	14	..	20	...	...	...	..	...
Ajmer	553	5,045	..	...	..	2,830	11,870	...		...
Baluchistan	171	1,242	850	..	58	..	...	...	...	...
Madras	80,413	875,398	385,182	...	70	12,141	89,416	18,822	...	...
Bombay	26,661	63,553	190,362	456	7,019	227,229	990,293	404,406	...	1,562
Total 1933-34	401,091	1,716,836	1,432,672	17,283	18,478	355,193	2,867,364	559,182	...	4,901
" 1932-33	387,619	1,524,324	1,287,707	25,000	13,756	343,980	2,815,991	891,731	...	5,118
" 1931-32	374,243	1,002,721	1,438,798	42,654	11,598	351,405	2,904,143	793,971	...	4,311
" 1930-31	425,646	1,985,252	1,812,687	25,612	12,269	340,059	2,788,569	949,521	103	2,855
" 1929-30	506,117	2,272,884	2,031,369	45,878	15,194	428,243	3,099,178	875,249	18	4,528

* In the case of Burma and the Federated Shan States the figures indicate elephants, and not camels.

MENT XI.

from cattle.

Grazed free, number of animals.										Total number of animals grazed.
By right under settlement.					During pleasure of Government or otherwise than under settlement.					
Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	
12	13	14	15	16	17	18	19	20	21	22
...	...	...	...	...	1,156	3,696	...	...	19	47,873
40,992	467,898	44,294	...	1,492	6,972	40,723	62,171	...	174	1,021,624
233,563	815,489	1,016,265	1,687	88,368	4,769	25,938	3	145	363	2,726,671
111,743	255,922	...	*213	444	13,161	8,908	...	*11,022	...	427,715
4,630	3,560	...	...	...	571	...	...	*200	...	13,435
76,174	208,140	101,280	...	9	51	746	300	...	...	425,056
5,467	6,639	507	...	4	...	627	...	...	...	30,901
...	375	...	...	...	4,514	259,292	1,169	20	639	3,146,580
40	482	...	...	...	2,230	11,482	...	...	...	17,463
5,866	9,299	5,500	500	100	...	...	...	...	...	24,030
201	928	...	...	...	...	...	...	...	...	21,550
...	3,829	51,170	...	1,600	...	...	...	...	...	59,920
2,108	10,194	5,071	...	150	9,035	89,720	445	...	...	1,678,171
2,210	6,597	...	...	22	112,699	474,187	15,034	2,481	1,947	2,538,731
482,793	1,789,358	1,224,087	2,400	42,199	155,158	915,883	79,142	13,658	3,112	12,079,149
439,621	1,808,711	1,078,097	2,187	43,010	147,077	920,435	109,428	2,002	13,660	11,922,664
431,878	1,798,325	1,071,002	1,887	42,479	101,724	860,981	66,280	2,183	13,668	12,075,314
453,309	1,811,036	1,138,583	1,687	43,126	156,388	793,149	65,167	1,731	13,787	12,524,466
364,210	1,682,848	1,498,514	320	204,041	132,329	837,155	68,838	1,058	16,438	14,080,144

STATEMENT XII.

Progress in concentrated regeneration and afforestation:

Province.	Area regenerated during the year		Area afforested during the year.	Total area.	Cost of regeneration and afforestation during the year, including tend- ing
	Mainly natural	Mainly artificial.			
	2	3	4	5	6
1	Acres.	Acres	Acres	Acres.	Rs.
Bengal . . . . .	...	2,413	...	2,413	63,169
United Provinces	5,529	1,292	435	7,556	1,05,052
Punjab	1,195	1,519	2,593	5,308	3,29,101
Burma	2,701	3,619	...	6,352	1,29,495
Federated Shan States . . . . .	...	68	...	68	5,957
Bihar and Orissa	1,200	208	34	1,532	8,508
Assam	765	1,367	...	2,132	33,309
Central Provinces	67,786	1,012	7	68,805	57,263
Coorg . . . . .	...	250	268	518	5,646
North-West Frontier Province . . . . .	...	224	20	241	13,653
Ajmer . . . . .	...	9	..	9	183
Baluchistan . . . . .	...	...	...	...	..
Andamans	321	65	...	386	11,691
Madras	334	3,540	391	4,365	53,214
Bombay	58,753	27,041	1,901	87,728	67,003
Total 1933-34	1,39,007	42,757	5,649	1,57,411	8,88,547
" 1932-33	1,38,868	21,761	2,525	1,63,154	9,00,578
" 1931-32	61,610	61,637	3,562	1,30,145	9,49,079
" 1930-31	not available			1,11,258	10,16,126

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		TOTAL.		Average Outturn per Square Mile.							
	Timber and fuel.		Timber and fuel.		Timber and fuel.		Timber and fuel.		Reserved Forests.		Protected Forests.		Unclassed Forests.		TOTAL.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Pcs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal . . .	20,370,000	4,04,363	537,000	3,034	400,000	70,464	21,330,000	4,81,880	3,140	63	718	4	144	20	2,011	45
United Provinces . . .	81,500,000	14,07,005	22,000	47	210,000	2,672	81,807,000	15,00,324	6,000	290	5,500	11	4,320	103	0,009	280
Punjab . . .	11,369,000	1,08,729	17,112,000	10,71,003	3,931,000	2,80,131	32,401,000	18,10,783	7,425	303	5,315	834	8,740	636	0,257	352
Burma . . .	43,500,000	3,71,000	...	...	45,089,000	2,51,000	88,048,000	0,30,000	1,381	13	...	...	400	3	718	5
Federated Shan States . . .	1,612,000	10,433	...	...	1,600,000	1,17,045	3,442,000	1,00,178	581	6	...	...	28	0	58	2
Bihar and Orissa . . .	4,745,000	1,04,170	4,754,000	1,40,000	...	2,320	0,400,000	2,50,405	2,500	58	4,112	1,201	...	333	3,101	85
Assam . . .	4,408,000	1,50,143	...	...	0,010,000	1,05,011	12,514,000	5,11,154	678	21	...	...	541	27	593	25
Central Provinces . . .	31,582,000	21,43,727	...	...	...	...	31,892,000	21,43,757	1,631	111	...	...	...	...	1,641	111
Coorg . . .	221,123	21,873	41,642	250	...	...	318,705	22,100	432	43	281	8	...	...	372	258
North-West Frontier Province . . .	2,220,000	08,170	208,000	3,508	22,000	...	3,540,000	71,687	13,180	378	2,840	33	...	...	10,140	305
Ajmer . . .	552,507	33,111	...	...	...	...	512,007	33,441	3,492	335	...	...	...	...	3,892	235
Baluchistan . . .	207,773	10,101	...	...	201,041	3	400,414	50,184	680	167	...	...	554	...	505	75
Andamans . . .	102,510	2,550	...	...	3,187,155	6,014	3,345,105	8,003	3,120	50	...	...	1,400	3	1,520	4
Madras . . .	10,187,000	11,17,410	252,000	1,05,507	2,514,000	3,36,005	21,813,000	16,00,158	1,213	71	380	170	...	...	1,170	75
Bombay . . .	54,050,000	18,60,510	045,000	14,770	522,000	...	54,520,000	18,60,550	4,050	141	1,080	17	...	...	3,014	134
TOTAL 1073-34 . . .	327,472,511	83,43,000	21,04,012	12,40,354	65,720,090	15,11,400	317,257,091	1,12,07,414	2,144	70	3,430	103	258	0	7,123	40
„ 1932-33 . . .	226,500,400	87,77,400	24,210,507	19,01,182	02,021,110	0,00,019	215,707,120	1,10,07,710	2,131	88	3,368	180	426	7	1,201	42
„ 1931-32 . . .	220,472,833	65,70,513	23,009,536	12,00,410	01,830,177	11,08,400	205,011,533	1,15,27,307	2,031	21	3,833	107	401	0	1,241	40
„ 1930-31 . . .	100,580,110	04,27,501	49,851,011	12,90,411	51,420,776	18,78,810	325,852,830	1,20,90,554	1,763	58	7,560	100	615	14	1,200	70
„ 1929-30 . . .	209,000,100	1,11,80,123	51,706,800	11,50,022	60,357,271	24,61,570	350,101,521	1,50,00,045	1,038	101	8,703	328	038	16	1,405	60

* Includes reserved forests but excludes sandalwood (175 tons scented wood and 125 tons unscented and rejected stuff)

STATEMENT XIV.

Forest produce removed by different agencies.

Part I.—Timber and Fuel.

Province.	Timber.					Fuel.				
	By Govern- ment	By purchasers	By free grantees.	By right holders	TOTAL	By Govern- ment	By purchasers	By free grantees	By right holders	TOTAL
	2	3	4	5	6	7	8	9	10	11
1	C ft	C ft	C. ft.	C ft	C ft	C ft	C ft	C ft	C ft	C ft.
Bengal	420,000	6,203,000	17,000	.	6,600,000	308,000	13,512,000	632,000	.	14,442,000
United Provinces	221,000	7,520,000	32,000	219,000	8,732,000	146,000	9,013,000	122,000	13,727,000	23,075,000
Punjab	556,000	2,975,000	61,000	853,000	4,476,000	1,305,000	2,413,000	414,000	23,823,000	25,015,000
Burma	1,903,000	29,781,000	223,000	165,000	32,127,000	286,000	19,167,000	2,732,000	4,044,000	26,219,000
Federated Shan States	15,000	2,667,000	21,000	41,000	3,047,000	2,000	230,000	.	154,000	357,000
Bihar and Orissa	69,000	2,220,000	57,000	204,000	2,550,000	53,000	2,071,000	22,000	3,697,000	6,849,000
Assam	275,000	4,657,000	62,000	...	5,134,000	37,000	3,900,000	3,016,000	7,000	7,950,000
Central Provinces	4,079,000	1,105,000	332,000	.	5,786,000	6,620,000	13,801,000	1,497,000	118,000	22,006,000
Coorg	111,000	39,207	...	.	151,167	76,018	91,500	.	.	167,518
North-West Frontier Province	60,000	1,433,000	2,000	5,000	1,460,000	153,000	157,000	1,219,000	516,000	2,067,000
Ajmer . . . . .	...	1,539	.	.	1,537	231,000	209,150	...	.	440,150
Baluchistan	1,500	1,503	450	.	3,973	15,543	419,778	520	...	440,841
Andamans	2,015,570	12,356	45,053	19,730	2,092,709	729,412	63,433	290,520	150,000	2,333,365
Madras	1,041,000	1,749,000	213,000	19,000	3,021,000	1,317,000	17,355,000	112,000	8,000	18,791,000
Bombay	691,000	5,041,000	113,000	334,000	7,252,000	780,000	39,511,000	13,000	8,222,000	48,274,000
TOTAL 1833-34	12,745,016	63,661,865	1,729,103	2,858,720	67,295,004	12,193,013	152,055,195	10,115,040	54,677,000	227,061,057
1832-33	15,105,912	63,815,373	1,007,153	3,100,100	66,727,578	13,759,138	145,717,053	9,251,060	55,103,530	228,979,751
1831-32	14,845,503	61,456,575	1,650,007	3,074,067	63,205,503	13,103,101	150,621,550	7,562,120	54,117,553	225,314,725
1830-31	17,600,563	73,018,546	1,672,673	3,000,643	63,133,094	16,531,251	140,014,124	7,070,450	53,217,280	223,710,156
1829-30	21,412,337	57,540,019	1,530,865	3,642,104	114,140,820	19,219,043	154,445,552	9,335,560	53,021,740	225,022,895

STATEMENT XIV—*contd.*Forest produce removed by different agencies—*contd.*

Part II.—Value of minor forest produce.

Province.	Bamboos					Grazing and Fodder Grass.					Other Minor produce.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal . . .	711	1,30,710	450	...	1,87,910	...	30,127	42,661	.	78,684	8,518	2,66,171	1,667	...	2,05,256
United Provinces .	289	71,420	81	7,090	78,817	452	1,81,658	11,323	3,12,361	5,39,727	4,74,820	3,60,780	41	57,303	8,63,650
Punjab . . .	10,813	2,010	...	303	13,216	12	1,30,900	42,601	18,60,727	15,54,260	2,10,207	20,609	14	22,385	2,62,209
Burma . . .	477	2,10,111	6,604	13,003	2,30,185	...	13,163	16,882	1,29,171	1,07,009	8,431	1,00,246	1,162	10,170	1,05,002
Federated States.	3	3,255	1	637	3,491	.	3,023	6,205	4,207	13,625	147	1,40,809	20	1,075	1,40,057
Bihar and Orissa .	1,052	13,995	420	5,310	60,163	..	9,006	125	1,36,970	1,40,001	1,181	42,020	162	6,373	50,332
Assam . . .	31	48,493	11,655	...	61,179	.	83,640	42,310	110	76,060	11,660	2,71,078	1,33,661	...	4,07,006
Central Provinces .	14,241	2,61,972	17,631	...	2,94,147	1,403	1,351,036	1,63,263	374	15,72,081	60,301	2,37,614	20,181	2,400	3,13,720
Coorg . . .	187	763	4	...	923	...	669	...	136	971	...	10,301	631	..	20,102
North-West Frontier Province.	...	.	...	...	...	...	5,641	80	9,659	16,182	55,210	1,186	...	100	55,605
Ajmer . . .	...	645	...	...	645	1,580	13,721	670	13,316	29,316	700	2,761	..	...	3,560
Baluchistan . . .	...	...	...	...	..	...	1,101	...	63,010	64,780	773	3,230	403	...	4,114
Andamans . . .	..	22	1,286	170	1,477	..	...	...	..	...	..	2,793	4,078	200	7,106
Madras . . .	21,100	8,08,017	1,407	340	8,59,641	108	5,69,040	20,843	7,300	6,10,041	10,601	5,35,050	1,570	616	5,51,703
Bombay . . .	162	94,028	4,810	57,189	1,49,209	.	7,21,765	20,210	8,35,720	15,86,727	2,671	1,17,870	2,007	86,467	1,50,391
TOTAL 1931-32	10,037	12,59,414	43,707	77,170	14,28,378	8,420	20,00,110	4,68,039	20,82,377	64,48,001	8,60,007	21,00,017	1,60,331	1,10,706	83,31,062
" 1932-33	30,772	14,68,017	26,610	74,411	16,20,978	6,731	20,61,891	4,15,889	22,79,162	63,62,607	7,52,692	20,10,855	1,16,050	1,55,013	80,76,218
1931-32	30,814	73,60,054	20,878	76,670	15,80,920	6,800	30,81,700	3,78,100	23,01,080	67,70,876	7,66,608	23,08,609	1,70,117	1,81,017	24,20,102
" 1930-31	31,106	14,30,786	22,103	72,039	15,70,781	11,203	27,67,071	1,07,445	33,30,617	60,00,780	11,28,176	70,66,705	2,41,101	1,81,642	41,03,464
" 1929-30	63,662	10,03,061	20,337	83,764	16,29,751	9,114	34,01,107	3,03,111	74,18,050	72,55,181	11,70,109	30,30,307	2,63,140	0,27,677	10,08,816

STATEMENT XV.

Exports of forest produce.

Articles of forest produce. 1	Quantity in tons of 20 cwt (in the case of teak and other timbers, cubic tons).		Valuation at port of shipment in 1933-34	
	Average of 5 years 1928-29 to 1932-33 2	In 1933-34. 3	Total 4	Per ton. 5
Caoutchouc, raw	8,646	7,235	Rs. 31,17,681	Rs. 431
Button	1,062	955	6,90,655	723
Lao	19,542	26,154	1,94,21,339	784
Shell				
Stick, seed and other kinds	7,792	9,141	45,28,093	495
Gutch and gambier	2,036	1,562	3,75,568	240
Myrabolams	61,027	61,835	55,93,190	90
Cardamums	462	599	21,21,976	3,546
Sandal	763	928	12,50,122	1,265
Teak	36,933	23,738	61,30,661	229
Other kinds of wood and timber * . . . . .	...	...	10,47,361	...
TOTAL 1933-34 . . . . .	...	..	4,42,78,526	.
" 1932-33 . . . . .	...	...	2,61,03,771	...
" 1931-32 . . . . .	...	...	3,89,72,658	...
" 1930-31 . . . . .	...	...	6,91,67,627	...
" 1929-30 . . . . .	.	...	11,66,51,584	...

* Quantity not recorded

STATEMENT XV (a).

Imports of timber into British India.

Year (calendar).	Imports of timber into British India.		Imports of sleepers of wood for railways into British India.	
	Cubic tons	Rs.	Tons.	Rs.
1930	23,413	36,03,907	...	...
1931	17,943	20,31,273	...	...
1932	12,218	11,37,996	...	...
1933	18,475	15,74,950	6	612
1934	19,440	16,15,018	...	...

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Grass and grazing.	Other minor produce.	Total.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	1,693	13,473	456	48,896	1,567	66,085
United Provinces	7,593	1,918	7,130	3,53,667	57,841	4,80,669
Punjab	61,118	10,89,517	...	...	14,46,053	25,10,718
Burma	57,310	27,063	6,565	56,582	1,181	1,49,671
Federated Shun States	4,616	...	1	6,236	26	11,168
Bihar and Orissa	22,059	39,131	5,775	1,39,549	6,828	2,14,242
Assam	38,361	21,226	11,655	44,829	1,23,861	2,43,795
Central Provinces	42,803	67,617	17,531	13,76,743	22,581	18,17,508
Coorg . . . . .	...	...	4	3,819	631	4,623
North-West Frontier Province	1,411	47,056	...	9,633	100	55,
Ajmer . . . . .	...	...	...	14,112	...	14,112
Baluchistan . . . . .	...	...	...	53,619	495	54,024
Andamans	6,001	4,271	1,415	...	4,268	16,058
Madras	48,657	27,313	1,829	35,705	7,433	1,20,937
Bombay	1,01,502	1,51,871	54,493	8,61,972	39,160	12,14,938
TOTAL 1933-34	3,97,257	14,40,019	1,06,857	30,05,475	17,11,195	66,60,808
„ 1932-33	4,19,137	15,41,716	80,693	30,05,716	10,96,958	67,62,121
„ 1931-32	4,20,591	14,83,409	88,026	24,74,014	17,46,255	62,11,698
„ 1930-31	3,31,058	14,90,101	1,00,634	26,36,041	15,30,752	60,00,586
„ 1929-30	4,32,355	12,76,935	1,35,132	23,37,160	4,53,193	46,34,081

STATEMENT XVII.

Details of revenue and expenditure for the financial year 1933-34.
(Excluding Burma and Federated Shan States)

		Rs.	Percentage of each item to total.	
Gross Receipts	(a) Wood	1,70,12,325	64.7	
	(b) Minor forest produce	34,62,610	13.2	
	(c) Forest stamps and Commutation fees for forest produce	86,768	.3	
	(d) Grazing	30,73,291	11.7	
	(e) Revenue from forests not managed by Government	6,24,022	2.4	
	(f) Miscellaneous	20,21,334	7.7	
	Total Revenue	2,62,81,159	100.0	
A Recurring	(a) Administration	(i) Superior Staff	1,20,35,123	59.9
		(ii) Subordinate Staff (including Rangers, Foresters and Guards)		
		(iii) Office Establishments (including Contingencies).		
	(b) Working	(1) Extraction	41,25,843	20.6
		(2) Roads and Buildings	10,52,530	5.2
		(3) Fire protection	2,11,042	1.1
		(4) Cultural operations	7,12,358	3.7
		(5) Live-stock, stores and plant	2,03,277	1.5
		(6) Working-Plans	2,50,045	1.2
		(7) Rent for leased forests	1,68,239	.9
		(8) Miscellaneous	1,57,207	2.3
	(c) Expenditure on realization of revenue from forests not managed by Government	2,165	.0	
	(d) Forest Science and Education (including all "A" and "B" charges of Forest College and Research Institute).	7,20,394	3.6	
	Total	2,00,59,102	100.0	
	B Extraordinary	(e) Forest Settlement	100	0
(f) Forest Survey		22,117	2.2	
(g) Forest Demarcation		51,456	5.0	
(h) Gain or loss by Exchange on English transactions, interest on capital outlay, etc		7,50,474	77.0	
(i) Share of Capital charges transferred to S-A		1,60,052	15.8	
Total		10,14,199	100.0	
GRAND TOTAL OF EXPENDITURE		2,11,02,391	—	
Net Revenue		51,78,768	—	
(Excluding Burma and Federated Shan States)				

* Expenditure under this head in provinces has been included in (a) Administration.

STATEMENT XVII(a).

Details of revenue and expenditure for the financial year 1933-34.

(Burma and Federated Shan States only)

			Rs.	Percentage of each item to total.
Gross Receipts	(a) Wood		75,00,023	81.6
	(b) Minor forest produce		5,32,421	6.0
	(c) Grazing		21,926	.3
	(d) Revenue from forests not managed by Government		1,51,514	1.6
	(e) Miscellaneous		6,30,667	7.1
	Total Revenue		88,39,551	100.0
Expenditure	A Recurring	(a) Administration.	(i) Superior Staff	
			(ii) Subordinate Staff (including Rangers, Foresters and Guards).	47,68,056
			(iii) Office Establishments (including Contingencies).	76.3
		(b) Working	(1) Extraction	5,91,557
			(2) Roads and Buildings	1,96,772
			(3) Fire protection	27,632
			(4) Live-stock, stores and plant	1,88,873
			(5) Working Plans, revision and maintenance . . . . .	..
			(6) Maintenance of boundaries	4,495
			(7) Regeneration and improvement	1,02,777
			(8) Silvicultural Research . . . . .	..
			(9) Utilisation Research . . . . .	..
			(10) Other Works . . . . .	..
			(11) Miscellaneous	2,08,080
			(12) Losses of Government commercial undertakings . . . . .	..
		Total	60,91,848	100.0
	B Extraordinary	(c) Forest Survey	669	.1
		(d) Gain or loss by Exchange on English transactions, interest on capital outlay, etc	4,20,601	95.6
		(e) Share of capital charges transferred to S-A	5,316	1.2
		Total	4,35,616	100.0
		GRAND TOTAL OF EXPENDITURE	65,27,464	..
		Net Revenue	23,12,087	..
		(Burma and Federated Shan States only)		

Summary of revenue and expenditure of the

Budget Heads.	Imperial	Bengal	United Provinces	Punjab	Burma (includes Federated Shan States and backward tracts)	Bihar and Orissa (includes Angul Division)	Arsam.
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
REVENUE							
I.—Timber and other produce removed from the forests by Government agency	...	2,16,938	5,11,770	10,41,676	11,97,799	4,369	1,39,812
II.—Timber and other produce removed from the forests by consumers or purchasers	..	11,83,667	36,63,850	6,05,600	68,56,574	6,29,775	11,27,458
III.—Drift and waif wood and confiscated forest produce	.	3,391	1,703	29,530	1,87,213	372	15,345
IV.—Revenue from forests not managed by Government.	...	...	40,643	902	1,54,514	...	44,665
V.—Miscellaneous . . . . .	...	1,12,594	8,18,484	2,72,000	4,56,049	52,567	1,29,888
Deduct—Refunds . . . . .	.	—13,829	—22,539	—1,532	—12,595	—2,270	.
TOTAL REVENUE	..	15,02,561	45,16,911	19,48,176	88,39,564	6,84,823	14,57,193
EXPENDITURE.							
A—CONSERVANCY, MAINTENANCE AND REGENERATION							
I.—Timber and other produce removed from the forests by Government Agency	..	1,96,292	2,92,077	4,03,304	4,66,703	1,095	61,261
II.—Timber and other produce removed from the forests by consumers or purchasers	...	1,38,515	1,26,017	2,507	96,045	20,021	57,733
III.—Drift and waif wood and confiscated forest produce.	...	1,515	330	10,194	31,899	68	458
IV.—Revenue from forests not managed by Government	..	...	9,165	...	151	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	...	6,595	1,09,693	.	..	11,974
VI.—Live-stock, stores, tools and plant . .	...	58,753	47,410	4 005	1,88,873	3,526	19,686
VII.—Communications and buildings . .	.	88,898	2,12,107	47,723	1,96,772	61,621	65,026
VIII.—Demarcation, improvements and extension of forests	...	85,250	2,58,017	1,13,426	1,79,548	29,258	39,218
IX.—Miscellaneous . . . . .	..	15,629	10,553	—16,095	1,62,012	13,916	38,092
Work Advances . . . . .	...	—105	..	...	—2,646	...	..
Total A—Conservancy, Maintenance and Regeneration.	.	5,27,252	9,62,321	6,74,459	13,19,297	1,32,593	3,14,849
B—ESTABLISHMENTS							
Total B—Establishments (includes salaries, travelling and other allowances and contingencies)	16,667	8,24,421	(a) 16,12,777	9,39,290	47,68,056	4,71,319	7,81,154
C.—Total gain or loss by exchange on English transactions, interest on capital outlay, etc.	..	67,408	72,547	1,80,705	4,29,601	47,116	67,570
D.—Total share of Capital charges transferred to E-A (i.e., Capital charges met from Revenue).	..	22,999	6,975	3,43,153	10,510	17,128	83,417
E.—Total Capital Outlay under E-A (i.e., not transferred to E-A)	.	..	..	..	.	.	...
GRAND TOTAL OF EXPENDITURE (Excluding expenditure under E)	46,667	14,12,181	26,54,580	21,37,840	65,27,464	6,68,071	11,97,019
SURPLUS (Including expenditure under E)	...	60,378	18,62,331	..	23,12,090	16,752	2 60,179
DEFICIT	46,667	...	...	1,89,764	...	...	...
Proportion of surplus to gross revenue . . . . .	...	1-21-0	1-2-4	..	1-2-8	1 41	1 5 6
Net revenue per square mile of forest area under control of Forest Department	...	57	855 3	..	126	5 5	12 1

(a) Includes figures of General Direction Division.

MENT XVIII.

Forest Department in India for the financial year 1933-34.

Central Provinces and Berar	Coorg.	North-West Frontier Province.	Ajmer	Baluchistan.	Andaman	Forest College and Research Institute.	Madras	Bombay	Total.
9	10	11	12	13	14	15	16	17	18
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
13,99,650	3,90,623	2,01,035	43,172	4,019	13,75,303	...	12,63,673	14,78,992	92,03,143
26,49,018	32,560	1,91,019	35,118	5,127	1,261	...	17,81,206	35,80,212	2,23,45,888
1,602	...	5,167	...	50	...	...	11,638	2,913	2,58,838
1,745	...	11,392	...	7,693	...	...	4,85,507	17,868	7,67,932
3,59,756	9,816	23,177	9,968	5,112	22,017	13,055	3,95,507	3,61,050	25,44,192
-6,023	-677	-753	...	...	-610	...	-17,183	-10,975	-59,025
41,03,011	5,32,511	4,35,260	88,278	23,840	11,01,054	13,055	89,43,068	51,30,090	3,51,20,713
5,42,217	40,512	1,14,951	23,505	1,058	8,36,731	...	3,43,519	6,25,861	38,89,666
1,55,700	7	1,390	467	269	673	...	1,67,107	50,737	8,17,271
79	...	2,760	...	...	...	...	...	...	47,363
...	...	...	...	...	...	...	...	...	9,846
8,818	...	23,477	...	...	...	...	...	27,672	1,65,229
21,013	8,220	1,630	295	89	18,174	1,550	95,147	5,011	4,76,105
1,72,533	9,912	26,513	8,173	612	5,228	597	1,63,789	1,20,711	12,05,857
1,50,723	23,370	16,619	2,116	1,719	12,810	...	1,21,192	1,10,110	11,49,126
1,25,457	1,519	3,303	309	411	313	61,378	38,706	88,171	4,95,604
-6,651	...	-101	-1,278	...	-15,629	...	...	...	-27,606
11,73,072	86,509	1,90,601	30,998	4,230	8,58,593	66,525	9,29,591	9,78,935	82,50,525
19,52,760	1,06,665	1,85,684	31,431	30,718	1,85,035	5,28,806	27,36,856	21,46,167	1,73,47,822
2,14,823	12,614	20,476	...	...	...	9,079	-133	97,343	12,19,134
2,724	286	1,811	...	...	53,078	2,675	2,51,033	63,989	8,12,674
15,185	...	...	81	...	...	1,825	...	...	(6)17,091
33,13,309	2,06,074	3,08,670	62,472	31,918	10,96,756	6,06,915	30,20,340	23,86,867	2,76,29,585
10,92,612	2,26,270	26,700	25,826	...	5,41,935	...	42,728	21,43,729	74,90,838
...	...	...	...	12,608	...	5,40,500	...	...	...
1 : 41	1 : 10	1 : 110	1 : 34	...	1 : 46	...	1 : 173	1 : 25	1 : 47
51.7	231.9	101.5	181.9	...	129	...	1.1	161.1	28.3

(b) Not included in grand total of expenditure.

Revenue of the Forest Department throughout India for the 35 financial years

(I) REVE

Province	Average of 1869-70 to 1873-74	Average of 1874-75 to 1878-79	Average of 1879-80 to 1883-84	Average of 1884-85 to 1888-89	Average of 1889-90 to 1893-94	Average of 1894-95 to 1898-99	1899-1900	1900-01	1901-02	1902-03	1903-04	1904-05
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Imperial . . .	2,175	31,717	25,129	10,866	5,117	9,688	6,000	2,463	3,484	3,659	7,155	3,763
Bengal* . . .	1,64,863	2,89,772	6,09,578	6,91,384	7,66,431	10,19,354	11,38,910	3,839	12,92,237	12,56,247	10,65,523	11,07,472
United Provinces . . .	12,59,979	12,21,670	11,74,615	14,03,525	16,89,190	15,31,824	16,11,740	15,65,163	17,15,508	20,25,524	29,50,110	27,97,316
Punjab . . .	6,87,123	7,05,558	7,37,333	9,11,950	9,00,117	11,89,510	11,00,770	13,59,842	11,47,553	15,66,108	17,17,797	15,74,443
Burma . . .	8,94,293	11,29,175	19,69,356	25,01,318	49,78,654	63,15,512	78,12,030	80,51,444	53,73,933	67,39,033	82,68,555	83,52,756
Bihar and Orissa . . .												
Assam† . . .		1,01,098	1,91,887	2,32,035	3,82,750	4,15,912	5,68,100	5,49,521	5,12,963	5,60,200	6,75,722	8,15,677
Central Provinces and Berar . . .	7,41,879	9,79,936	12,81,992	14,11,163	16,08,505	13,75,958	12,97,199	12,65,611	15,79,116	16,84,423	19,95,032	21,13,479
Cooch . . .	92,191	78,867	1,03,179	1,13,021	1,53,136	1,33,456	1,62,410	1,37,596	1,70,242	1,90,730	2,24,091	1,97,957
North-West Frontier Province . . .									13,012	1,01,123	1,61,833	91,991
Ajmer . . .	65	1,152	4,475	11,859	15,233	11,162	10,270	10,646	6,865	9,736	13,684	17,277
Baluchistan . . .			8,556	10,973	17,993	15,330	17,069	16,956	14,712	19,336	16,363	22,555
Andamans . . .	5,467	4,185	31,810	57,633	2,79,025	2,54,438	2,60,600	2,77,556	2,66,993	3,26,035	4,32,351	6,29,793
Forest College and Research Institute . . .				397	1,636	3,040	3,210	3,697	3,515	3,232	2,938	3,557
Forest Surveys (Imperial) . . .		17	139	206	668	300	420	327	473	3,031	431	
Madras . . .	6,03,243	5,68,389	8,06,020	13,00,481	17,14,323	31,10,988	21,02,230	23,19,170	25,43,470	26,13,619	21,57,727	23,29,216
Bombay . . .	11,77,673	12,23,561	16,93,818	20,11,814	33,51,893	39,46,244	24,15,200	29,61,529	23,79,729	23,29,156	27,51,539	30,29,658
GRAND TOTAL . . .	56,30,061	66,60,397	88,17,213	1,16,62,145	1,50,19,014	1,77,15,750	1,99,09,610	1,97,70,493	1,78,23,715	1,94,71,549	2,22,16,747	2,10,53,951

Province.	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial . . .	51,720	27,488	21,527	27,122	27,803	29,553	29,571	39,101
Bengal . . .	13,76,960	19,44,104	20,51,297	21,84,763	18,98,979	23,11,226	22,61,515	21,75,329
United Provinces . . .	61,16,697	66,37,166	74,71,054	87,79,781	86,46,677	83,72,803	73,56,029	69,21,957
Punjab . . .	21,17,776	21,54,178	38,45,878	33,05,058	19,91,178	34,44,153	13,86,773	37,27,312
Burma . . .	1,23,61,199	1,27,23,852	1,64,37,262	1,99,75,060	2,21,16,787	1,89,43,172	1,94,12,799	1,36,77,524
Bihar and Orissa . . .	7,53,625	9,44,763	8,17,458	8,10,072	9,00,573	8,81,931	10,22,055	10,70,268
Assam . . .	17,09,956	14,92,718	14,51,599	15,01,944	12,07,027	17,13,639	19,71,222	21,72,753
Central Provinces and Berar . . .	34,66,493	34,88,422	15,40,721	47,24,726	41,83,693	47,05,979	51,04,929	52,32,032
Cooch . . .	4,53,673	6,77,573	9,48,028	1,27,751	7,03,791	9,12,653	7,00,947	6,88,003
North-West Frontier Province . . .	3,37,711	3,81,722	1,61,541	2,19,779	5,71,853	7,27,659	5,61,332	6,09,767
Ajmer . . .	27,733	37,280	21,911	18,112	40,812	43,978	55,112	60,062
Baluchistan . . .	17,974	25,405	17,647	22,544	17,229	14,939	22,403	29,593
Andamans . . .	7,27,656	11,81,383	8,00,777	6,21,374	5,59,093	5,68,027	6,11,382	7,25,797
Forest College and Research Institute . . .	2,87,041	9,083	1,78,705	12,645	24,117	1,84,763	1,67,379	1,02,379
Forest Surveys (Imperial) . . .								
Madras . . .	54,38,267	47,91,169	64,84,119	73,31,216	18,69,171	52,72,976	54,15,877	55,09,682
Bombay . . .	67,12,022	1,08,99,031	84,91,433	1,02,08,725	74,97,563	79,37,354	71,49,694	73,07,964
GRAND TOTAL . . .	4,03,49,827	4,65,12,231	5,89,75,779	5,41,49,195	5,67,16,071	5,52,14,072	5,62,90,319	5,67,14,032

* Includes figures up to 1910-11 for districts subsequently transferred to Bihar and
† Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred
(a) Includes Federated Shan States.

MENT XIX.

from 1899-1900 to 1933-34 and the average of 6 quinquennial periods from 1869-70 to 1898-99.

NUE.

1905-06	1906-07.	1907-08	1908-09	1909-10.	1910-11.	1911-12	1912-13.	1913-14	1914-15	1915-16	1916-17.	Province.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
7,255		7,666	8,160	10,632	8,002	10,680	12,837	11,471	12,017	27,457	21,516	Imperial
11,18,512	10,67,850	11,97,650	11,81,815	10,80,610	11,67,441	11,22,112	16,00,601	15,16,111	13,91,406	11,45,810	13,38,779	Bengal *
21,33,128	23,02,661	24,09,715	21,73,106	23,01,161	21,78,470	30,16,160	35,13,063	37,12,487	31,35,237	37,38,631	50,10,932	United Provinces.
17,61,033	16,04,251	11,37,110	12,88,791	10,72,073	12,17,883	13,10,077	12,39,033	13,51,913	11,38,003	17,27,225	16,87,801	Punjab
1,03,29,560	85,12,519	86,63,030	91,02,032	91,88,077	1,00,70,117	99,67,594	1,09,22,305	1,14,25,430	97,07,691	93,90,217	1,23,79,531	Burma.
"	"	"	"	"	"	1,07,213	1,34,958	4,91,735	5,19,779	5,17,727	5,29,081	Bihar and Orissa.
11,06,096	13,20,492	11,30,117	11,46,363	15,51,732	18,90,675	11,46,320	11,12,091	10,97,969	8,32,877	10,55,052	11,48,621	Assam †
21,49,131	21,01,150	22,00,128	20,78,162	20,78,310	21,14,236	25,49,851	31,71,815	31,66,153	32,72,529	32,78,261	33,71,578	Central Provinces and Berar.
2,15,419	2,15,900	2,71,756	2,21,330	2,13,120	2,76,050	2,85,170	2,61,052	3,29,227	1,99,237	4,19,155	4,67,311	Coorg.
1,28,729	1,63,214	2,34,190	1,52,782	1,73,305	2,05,312	1,58,171	2,37,183	2,66,711	2,38,013	1,66,816	2,10,983	North-West Frontier Province
15,002	18,375	29,804	27,615	23,920	37,816	26,361	36,596	33,807	31,170	21,445	21,272	Ajmer
21,451	21,107	21,520	23,305	18,720	23,212	27,117	20,150	19,058	19,056	21,637	19,271	Baluchistan.
5,82,511	6,07,027	2,10,622	2,02,018	2,50,177	1,16,773	3,22,160	4,49,925	1,45,611	3,39,218	4,31,781	6,19,711	Andaman.
3,000	1,570	6,137	4,680	1,900	1,050	5,550	7,011	5,606	8,617	6,995	8,190	Forest College and Research Institute
"	"	"	"	"	"	"	"	"	"	"	"	Forest (Imperial) Saraya
29,67,601	32,93,660	38,91,530	38,97,919	41,78,981	38,60,111	41,66,021	41,12,473	43,00,320	39,41,537	41,06,838	45,96,126	Madras.
35,44,923	34,22,181	36,10,177	35,47,556	35,57,056	37,18,221	43,70,569	49,92,519	51,03,156	46,60,212	47,01,263	55,19,177	Bombay.
2,66,71,597	2,61,91	196,2,38,62,070	2,51,56,190	2,60,25,791	2,71,05,451	2,93,57,830	3,22,09,803	3,33,61,515	2,97,09,784	3,11,16,367	3,70,61,090	GRAND TOTAL.

1925-26	1926-27	1927-28.	1928-29.	1929-30	1930-31.	1931-32.	1932-33.	1933-34	Province
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
"	"	"	"	"	"	"	"	"	Imperial
25,76,120	31,23,811	37,10,460	31,18,307	30,52,078	21,12,010	16,91,479	15,11,717	15,02,561	Bengal.
61,20,251	58,71,205	72,01,183	61,80,301	61,79,693	49,76,118	45,29,073	45,95,551	45,16,911	United Provinces
41,17,076	39,07,731	51,91,217	75,07,625	31,57,771	23,81,805	22,11,509	19,52,009	19,18,176	Punjab
2,27,46,118	2,07,91,670	2,21,07,675	1,61,01,173	2,03,69,101	1,58,67,550	1,13,07,010	92,11,859	88,39,574	Burma.
10,28,502	9,13,752	9,34,760	10,97,161	9,32,275	8,11,407	6,28,013	6,16,673	6,81,871	Bihar and Orissa.
30,39,110	31,51,473	36,13,160	37,67,778	35,24,025	22,61,077	19,27,078	16,10,407	14,57,192	Assam
19,87,300	19,21,970	20,78,160	21,16,516	20,97,805	21,11,891	21,17,111	12,80,168	14,06,011	Central Provinces and Berar.
5,25,518	1,54,115	4,83,972	5,17,036	5,72,031	3,09,073	1,55,521	3,37,321	4,32,811	Coorg
7,11,507	7,91,163	7,56,700	8,27,377	8,61,377	8,03,902	7,31,285	7,29,710	6,55,200	North-West Frontier Province.
72,759	69,911	76,515	87,024	91,503	95,278	87,587	90,425	88,228	Ajmer.
23,021	27,012	2,16,67	23,125	29,307	29,577	27,076	25,013	22,810	Baluchistan.
8,91,022	11,70,863	11,19,062	15,03,706	20,06,613	19,87,590	14,51,124	16,22,120	14,01,064	Andaman
1,05,657	2,71,025	1,16,167	1,00,091	1,07,663	93,008	20,001	75,960	19,075	Forest College and Research Institute
"	"	"	"	"	"	"	"	"	Forest (Imperial) Saraya
51,70,520	56,23,700	59,11,191	67,51,773	67,61,821	62,67,057	42,51,672	47,38,169	46,43,068	Madras.
75,10,075	76,16,420	72,91,091	73,11,075	70,74,601	55,91,713	60,75,411	60,74,108	54,80,000	Bombay.
5,03,70,825	6,19,64,791	6,19,00,139	5,91,00,113	6,13,22,961	4,72,91,853	3,00,07,777	3,74,11,020	3,51,30,718	GRAND TOTAL.

Orissa.
to Bengal.

(b) Rs. 52,151 deducted on account of Refunds.

Expenditure of the Forest Department throughout India for the 35 financial years

(II) EXPEN

Province.	Average of 1870-71 to 1873-74	Average of 1874-75 to 1876-79	Average of 1870-80 to 1883-84	Average of 1884-85 to 1888-89	Average of 1889-90 to 1893-94	Average of 1894-95 to 1898-99	1899-1900	1900-01	1901-02	1902-03	1903-04	1904-05
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Imperial*	63,685	67,102	80,454	87,185	84,125	82,516	96,550	83,578	79,539	85,017	89,345	83,055
Bengal†	1,11,081	2,12,021	3,55,147	3,91,317	4,01,147	5,38,653	5,47,210	5,70,806	6,57,131	6,95,014	7,03,405	6,85,589
United Provinces	9,63,005	8,39,709	8,38,658	9,17,898	9,16,428	9,15,078	9,12,380	9,63,139	10,08,739	10,13,998	10,61,115	13,01,383
Punjab	8,29,326	5,57,145	5,41,242	6,44,874	6,16,374	7,53,274	12,11,160	8,87,813	9,38,335	9,60,095	11,16,415	10,12,354
Burma	1,02,847	8,12,270	10,12,512	13,22,124	16,72,383	21,20,612	24,47,149	26,51,717	26,46,437	23,90,263	34,52,104	34,40,824
Bihar and Orissa . . . . .	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡ . . . . .	..	88,293	1,62,160	2,11,655	2,68,159	2,66,870	3,57,140	3,47,972	3,29,112	3,27,498	4,21,164	5,03,656
Central Provinces and Berar	3,99,072	4,33,734	6,13,539	7,87,805	10,10,637	11,78,060	12,75,820	11,65,866	12,00,904	12,57,285	12,50,036	13,20,615
Coorg	40,681	36,591	62,248	73,297	77,016	82,146	71,230	70,995	83,333	89,127	92,191	83,520
North-West Frontier Province . . . . .	..	..	..	..	..	..	..	..	19,510	51,086	60,603	74,955
Ajmer	6,197	18,692	13,197	17,620	14,061	16,722	15,350	16,782	15,927	16,377	16,680	15,641
Baluchistan . . . . .	..	..	12,591	16,130	39,152	33,508	28,650	22,254	21,180	23,240	21,697	24,672
Andamans	739	451	5,120	41,108	1,76,139	1,85,425	1,40,910	1,40,187	2,04,667	2,61,702	2,66,121	3,42,431
Forest College and Research Institute . . . . .	..	..	..	28,746	45,023	65,120	79,550	71,238	76,290	66,338	59,339	61,424
Forest Surveys (Imperial).	11,911	63,283	40,417	24,177	24,191	31,936	31,950	33,991	33,730	33,985	37,935	23,829
Nadras	4,55,874	5,76,976	6,29,660	10,67,521	12,65,113	15,06,756	16,53,559	17,15,131	17,09,574	18,34,552	17,50,933	19,86,026
Bombay	6,18,046	8,70,157	12,51,292	18,41,812	19,09,759	19,81,552	21,45,139	24,08,381	17,19,670	16,76,441	17,75,917	19,03,604
GRAND TOTAL	39,23,130	45,76,894	56,09,579	74,46,953	86,03,552	97,95,149	1,10,21,650	1,11,09,010	1,07,16,355	1,12,49,221	1,21,66,977	1,29,67,580

Province.	1917-18.	1918-19	1919-20	1920-21.	1921-22	1922-23	1923-24	1924-25
	Rs	Rs.	Rs	Rs	Rs	Rs	Rs	Rs
Imperial*	90,323	1,10,638	1,32,777	1,08,293	2,57,011	4,77,494	1,44,489	1,68,595
Bengal	7,38,712	8,23,835	9,72,107	13,36,750	12,83,122	12,31,249	12,42,672	14,17,451
United Provinces	32,04,923	45,03,963	61,55,475	70,49,578	74,04,658	61,56,156	43,50,695	36,64,005
Punjab	11,58,048	17,05,604	24,16,120	35,75,749	43,76,076	49,06,871	29,16,035	26,11,458
Burma	51,87,179	56,91,982	67,98,200	73,07,014	90,83,091	99,72,149	1,03,02,159	96,25,313
Bihar and Orissa	3,90,716	4,50,619	5,06,800	5,89,118	9,04,663	7,17,531	7,50,657	7,90,397
Assam	6,86,627	6,90,961	8,21,717	9,66,601	9,91,511	11,14,691	11,59,845	13,70,853
Central Provinces and Berar	18,72,124	20,15,513	23,76,230	27,37,601	27,15,621	30,24,417	30,41,108	31,71,583
Coorg	1,09,911	1,27,572	5,07,547	4,06,756	6,30,615	5,86,067	5,05,598	3,58,751
North-West Frontier Province	1,53,675	2,07,357	3,01,153	4,54,197	7,49,354	6,12,353	1,58,567	5,48,713
Ajmer	26,501	23,593	17,252	37,417	41,320	59,849	49,454	49,125
Baluchistan	29,930	28,787	25,314	2,761	59,275	36,468	31,149	30,478
Andamans	3,97,724	6,12,926	9,71,491	13,27,930	12,87,027	8,05,184	6,86,314	11,57,690
Forest College and Research Institute	4,59,094	2,94,018	3,16,597	4,57,484	7,32,624	7,39,586	7,75,642	8,26,365
Forest Surveys (Imperial)	56,597	59,110	59,973	90,118	1,07,123	1,19,935	95,944	..
Nadras	30,20,849	31,82,520	36,04,345	45,50,456	51,17,856	47,89,163	46,33,826	59,72,459
Bombay	39,58,714	42,78,724	50,15,682	53,05,022	50,23,946	49,14,311	44,01,621	43,82,817
GRAND TOTAL	2,41,57,965	2,82,72,305	3,17,67,199	3,64,19,907	4,08,51,678	3,93,12,041	3,55,15,369	3,52,67,683

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests.
† Includes figures up to 1910-11 for districts subsequently transferred to Bihar and
‡ Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred
(a) Includes Federated Shan States.

MENT XIX—contd.

from 1899-1900 to 1933-34 and the average of 6 quinquennial periods from 1869-70 to 1898-99.

DITURE.

1905-06	1906-07	1907-08.	1908-09	1909-10	1910-11	1911-12	1912-13.	1913-14	1914-15	1915-16	1916-17	Province.
Rs	Rs	Rs	Rs.	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	
89,767	95,472	1,00,204	1,01,183	1,01,332	92,606	91,711	1,01,162	99,296	99,478	1,02,502	1,03,248	Imperial *
5,93,509	6,31,386	7,19,391	5,83,951	5,91,099	6,43,285	7,06,371	6,60,794	6,40,157	6,70,935	5,93,675	6,10,649	Bengal †
14,05,182	13,06,611	11,91,013	12,22,476	12,09,308	12,37,936	13,67,673	16,29,264	18,95,011	23,17,710	25,66,707	27,35,915	United Provinces.
12,65,661	11,41,493	11,76,696	8,51,627	6,67,752	7,40,512	7,65,116	7,99,176	9,19,177	8,89,302	9,23,878	9,31,672	Punjab
39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	35,42,799	41,31,163	41,35,581	42,71,301	46,80,147	49,86,241	49,36,558	Burma
...	...	...	...	...	...	3,00,916	3,75,694	3,55,648	3,61,371	3,61,559	4,17,072	Bihar and Orissa
5,33,910	7,07,860	8,00,373	8,91,319	10,12,511	10,87,340	8,41,019	8,08,911	9,10,210	8,93,339	7,55,214	6,76,093	Assam ‡
13,07,153	13,11,893	15,87,197	17,53,307	15,86,812	15,89,577	18,38,379	19,16,735	19,57,129	19,36,569	17,31,336	17,63,775	Central Provinces and Berar.
95,718	1,02,855	1,01,819	99,595	1,07,823	1,07,679	1,21,171	1,61,514	1,78,514	1,75,673	1,76,673	1,60,192	Coorg
95,258	92,650	88,490	81,413	77,391	72,492	89,436	1,23,179	1,31,023	1,25,539	1,01,795	1,18,070	North-West Frontier Province
17,131	16,715	18,168	19,916	19,372	19,918	23,343	29,714	23,595	21,733	25,152	26,631	Ajmer.
25,713	26,322	31,253	36,556	26,549	26,787	28,947	25,527	25,310	26,000	27,995	26,929	Baluchistan.
3,35,985	2,95,186	2,20,267	1,80,941	1,91,159	2,26,963	2,61,732	2,55,111	2,71,076	2,58,056	4,30,872	4,28,632	Andamans.
80,669	1,37,456	1,58,038	1,63,191	1,96,174	2,19,183	2,63,441	2,68,415	2,98,338	3,31,021	2,78,516	3,05,498	Forest College and Research Institute
30,014	30,330	27,060	39,128	41,062	41,140	93,793	95,809	37,743	42,343	48,663	47,407	Forest Surveys (Imperial).
22,26,602	21,89,660	27,89,857	29,17,261	33,39,635	32,25,601	34,11,862	31,50,482	29,35,217	28,00,057	23,27,318	23,12,673	Madras.
21,26,023	19,91,183	19,55,127	20,47,673	20,63,088	29,70,417	26,61,146	29,24,475	25,67,677	24,67,023	26,42,078	27,61,651	Bombay.
1,12,20,521	1,10,62,819	1,43,12,933	1,47,26,071	1,19,29,654	1,52,41,023	1,69,46,566	1,73,07,810	1,75,44,157	1,81,06,150	1,85,92,607	1,67,17,563	GRAND TOTAL

1925-26	1926-27	1927-28	1928-29	1929-30	1930-31.	1931-32.	1932-33	1933-34	Province
Rs.	Rs	Rs	Rs	Rs	Rs.	Rs	Rs.	Rs	
1,18,911	1,21,558	61,661	59,761	61,498	(b) 1,04,252	59,083	45,019	46,667	Imperial *
12,69,913	17,31,761	17,02,473	16,62,191	16,65,180	15,05,139	16,61,044	15,06,513	14,42,163	Bengal.
36,95,346	53,73,499	39,93,303	32,43,716	37,68,710	32,78,623	26,41,164	26,03,079	26,51,550	United Provinces.
27,01,510	27,03,376	29,51,871	21,93,319	29,69,107	28,01,461	21,01,103	22,69,140	21,97,940	Punjab.
(a) 65,67,913	(a) 69,40,684	(a) 68,37,868	(a) 64,21,771	(a) 78,05,595	(a) 75,61,239	(a) 66,52,010	(a) 65,61,385	(a) 65,97,463	Burma
6,67,624	10,87,060	6,63,374	8,59,373	9,02,662	7,34,675	7,63,257	6,31,793	6,61,071	Bihar and Orissa.
16,37,973	14,47,503	14,45,767	21,22,366	22,20,302	21,16,569	16,11,208	14,10,217	11,97,019	Assam
33,45,719	36,42,091	31,99,163	36,49,259	39,75,659	39,60,617	34,53,161	34,72,297	33,47,399	Central Provinces and Berar.
3,05,995	2,81,770	2,59,186	2,65,133	3,11,454	2,97,350	2,29,515	1,99,098	2,06,074	Coorg
5,47,321	6,40,719	6,91,414	8,31,935	8,40,215	8,13,708	7,53,899	6,15,792	3,98,679	North-West Frontier Province.
55,161	79,718	82,854	76,955	81,200	83,821	87,684	75,153	62,432	Ajmer.
31,355	33,422	34,019	36,878	37,651	41,725	31,696	32,309	34,948	Baluchistan.
11,35,069	12,20,037	11,50,634	13,28,027	16,47,454	17,27,918	12,31,667	13,10,763	10,96,756	Andamans
8,11,033	8,96,565	9,36,204	9,41,737	9,31,834	9,69,467	7,33,174	6,02,578	6,00,915	Forest College and Research Institute.
...	...	...	...	...	...	...	...	...	Forest Surveys (Imperial).
48,23,239	50,76,814	47,69,591	45,59,593	45,16,627	45,79,321	39,59,897	37,89,150	40,29,310	Madras.
12,07,626	43,59,516	43,11,781	44,02,445	46,75,278	43,51,566	40,66,789	40,53,206	32,86,367	Bombay.
3,30,63,202	3,56,06,316	3,56,81,654	3,50,61,269	3,63,35,513	3,52,05,803	3,00,71,031	2,87,96,852	2,70,29,865	GRAND TOTAL

Office Establishment, and undistributable and petty local items and revenues and charges on Indian and Brigaloro. Excludes Home charges. Orissa.

to Bengal

(b) Includes Rs 1,23,587 on account of Chempita Timber Operations.

Surplus of the Forest Department throughout India for the 35 financial years

(III) SUR

Province	Average of 1860-70 to 1873-74	Average of 1874-75 to 1878-79	Average of 1879-80 to 1883-84	Average of 1884-85 to 1888-89	Average of 1889-90 to 1893-94	Average of 1894-95 to 1898-99	1899-1900	1900-01	1901-02	1902-03	1903-04	1904-05
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Imperial*	-61,510	-35,385	-55,025	-76,269	-78,978	-77,125	-90,160	-81,115	-76,035	-81,358	-81,890	-79,297
Bengal†	53,141	77,718	2,51,131	2,37,037	3,62,284	5,10,712	5,93,700	6,62,533	6,35,106	6,18,223	3,62,015	4,78,553
United Provinces	2,93,974	3,81,941	2,93,937	5,15,627	7,12,767	5,96,746	0 72,360	6,02,024	7,06,760	10,11,326	11,09,008	10 05,753
Punjab	1,41,903	1,18,410	1,06,096	2 67,578	2,54,013	3,89,256	1,69,310	1,63,499	5 00,123	6,26 113	5,61,382	8,82,053
Burma	4,01,151	6,16,896	9,75,814	11,78,594	33,06,271	41,91,900	51,61,610	53,99,727	32,27,181	35,48,790	49,16,131	55,12,832
Bihar and Orissa	.	.	.	.	.	.	.	.	.	.	.	.
Assam†	.	12,803	29,127	20,100	1,11 591	1,29,042	2,10,960	2,01,519	1,83,851	2,52,701	2,50,248	3,12,021
Central Provinces and Berar	3,42,807	5,16,102	6,68,153	6,73,358	6,78 846	1,97,298	21,670	99,718	3,78,212	1,27,110	7,17,066	6,92,814
Coorg	52,807	42,296	40,923	39,117	76,120	51,310	89,190	66,691	87,909	1,01,293	1,81,519	1,09,237
North-West Frontier Province	.	..	.	..	.	.	..	.	6,198	47,038	11,230	16,033
Ajmer	-6,132	-17,510	-8,722	-5,761	1,172	-2,560	-5,080	-6,136	-9 063	-6,641	2,796	1,656
Baluchistan	.	.	-1,098	5,157	-21,154	-18,178	-11,620	-12,298	-9,768	-3,904	3 231	-2,117
Andamans	4,728	1,004	29,711	16,525	1,02,889	69,010	1,10,660	1,37,749	62 236	11,393	1,61,260	2,78,265
Forest College and Research Institute	.	.	..	-28,349	-47 367	-62,020	-70,310	-67,541	-72,715	-63,086	-56,901	-57,567
Forest Surveys (Imperial)	-11,911	-63,271	-40,305	-24,271	-27,823	-31,636	-33,560	-33,661	-33,257	-30,951	-33,594	-28,229
Maurius	1,46,109	11,413	1,85,360	2,32,960	4,29,215	6,04,232	6,48,760	6,24,739	8,33,876	7,78,267	9,06,797	8,43,118
Dominion	5,29,627	3,58,074	6,12,526	11,69 502	14,15,104	10,64,662	2,86,770	5,52,948	6,60,010	6,52,715	9,75,602	11,16,951
GRAND TOTAL	16,96,671	20,63,597	32,07,674	42 11,193	73,15,662	79,19,616	79,81,880	86,10,153	70,77,317	62,22,200	1,03,19,754	1,16,61,024

Province	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Imperial*	-35,612	-83 150	-1 08,170	-1,41 871	-2,29,208	-4 06 911	-1,14 938	-1,38,495
Bengal	6,98,237	11,18,269	10,76,990	8 18,013	6,10,837	10,79 977	10,18,613	10 58,058
United Provinces	27 11,769	20,38 213	13,16,179	17,36,203	12,41,959	22,11,317	30,05,231	32,77,832
Punjab	9,59,725	3,54,874	11,29,758	2,59,300	6,15,102	-14 62,128	11,70,198	11,12,821
Burma	68,71 320	63,36 870	95 97,062	1,16,68,016	1,80,23 693	89,71,503	91 99 240	1,00,10,511
Bihar and Orissa	3,62,909	5,13,914	3,10,653	2,21,454	-91,292	1,61 373	2,78,128	2,79,571
Assam	6,21,320	8,01,737	6,59,873	5,65,317	3,05,516	5,97,219	8,11,117	11,47,903
Central Provinces and Berar	15,04,269	14,72 874	21,70,193	16,60 925	14 17,872	16,72 563	20,63,821	20,60,769
Coorg	2,53,732	2,53,701	1,10 191	-39 407	1,63 036	3,56,616	1,35,319	3,09,579
North-West Frontier Province	1,53,836	1,13,965	1,61,025	-2,34 418	-1,74 531	1 15,276	71,765	81,074
Ajmer	1,220	8,772	-12,768	10,695	-408	1 178	5,968	16,937
Baluchistan	-18 065	-3,679	-7,377	-6,217	-36 046	-21,529	-9,037	-9,885
Andamans	3,93 932	5 71 557	-1,70,693	-7,07,536	-7,86 929	-2,17,157	-2,84,832	-4,38,093
Forest College and Research Institute	-2 61 370	-2 68,965	-3,10,195	-4,44 836	-7,08 707	-5 54 823	-6,68,793	-7,24,786
Forest Surveys (Imperial)	-5 67 571	-59,110	-50 95,555	-90 443	-1,07 119	-1,19 935	-48 911	
Maurius	21 12,150	36,05 946	55,37 301	8,50,760	-2,46 185	1,84 203	7,81,731	1 67,223
Dominion	29,12,526	26,51,854	33,17,250	15,09 523	31,69 617	30,23,019	27,15 850	29,25,647
GRAND TOTAL	1,33,12,526	1,27,12,526	2,17,12,526	1,77,12,526	1,74,61,101	1,59 04,031	2 04,71,550	2,14,76,789

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests, and Inspectors of Forests up to 1910-11 for districts subsequently transferred to Bihar and Orissa. Includes up to 1910-11 for Eastern Bengal districts and subsequently transferred to Bihar and Orissa.
(a) Includes Federated Shan States.
(b) Includes Rs. 1,25,587 on account of Chengtu Timber Operations.

MENT XIX—concl'd.

from 1899-1900 to 1933-34 and the average of 6 quinquennial periods from 1869-70 to 1898-99.

PLUS.

1905-06.	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	Province
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
-76,512	-95,172	-92,538	-95,991	-93,700	-63,911	-81,031	-91,025	-87,825	-87,131	-86,015	-78,702	Imperial *
5,25,033	4,32,173	1,81,256	6,00,861	4,89,511	5,21,150	4,16,068	19,39,807	9,75,951	6,33,561	5,51,975	7,19,130	Bengal †
10,28,246	11,90,013	12,15,732	9,52,970	10,91,586	11,40,501	16,52,487	19,14,609	18,16,173	8,17,195	11,72,521	27,05,017	United Provinces
5,17,809	1,60,881	2,80,753	4,97,105	3,61,851	1,77,116	5,11,091	1,39,857	1,35,766	5,18,701	8,03,105	7,53,139	Punjab
63,91,606	61,52,766	51,12,157	54,74,785	56,74,459	62,27,318	58,76,132	67,63,809	71,50,520	50,27,217	49,12,976	71,42,913	Burma
"	"	"	"	"	"	1,06,297	63,061	1,36,087	1,65,108	1,56,177	81,109	Bihar and Orissa
5,12,186	6,12,732	6,30,071	5,55,010	5,22,191	8,03,295	3,05,307	3,33,180	1,87,720	-65,462	2,99,888	4,72,588	Assam ‡
11,41,978	10,58,251	7,06,721	3,21,855	4,91,158	5,21,691	7,11,175	12,25,080	12,33,321	13,35,960	15,11,926	16,02,803	Central Provinces and Berar
1,49,671	1,33,054	1,69,937	1,21,735	1,05,307	1,63,376	1,73,996	1,20,108	1,50,713	27,401	2,72,521	3,26,822	Coorg
33,271	89,561	1,50,090	41,369	95,914	1,32,850	68,775	1,15,010	1,35,718	1,12,120	82,020	1,22,915	North-West Frontier Province
-2,129	1,020	11,076	7,699	4,718	13,929	1,018	6,552	10,302	9,437	-1,707	-5,362	Ajmer
-4,262	-5,127	-6,129	-13,251	-7,820	-9,175	-8,830	-8,365	-5,323	-6,912	-6,362	-8,652	Baluchistan
2,16,520	3,11,891	62,555	21,077	65,315	1,89,810	2,60,425	1,94,781	1,71,135	81,193	3,952	2,21,059	Andamans
-77,589	-1,32,907	-1,51,901	-1,78,511	-1,91,265	-2,15,103	-2,57,891	-2,60,831	-2,92,532	-3,22,471	-2,71,523	-2,97,299	Forest College and Research Institute
-30,011	-30,350	-27,000	-39,123	-41,063	-41,110	-38,795	-35,899	-37,713	-42,853	-18,663	-47,407	Forest Surveys (Imperial).
7,01,092	8,10,009	11,12,973	9,73,658	8,88,716	6,54,610	7,51,079	9,61,091	12,61,503	10,50,852	11,70,520	17,53,418	Madras.
12,53,900	14,32,298	16,90,750	15,11,153	16,91,568	16,47,807	16,66,138	21,00,061	25,19,279	21,02,317	20,50,325	29,51,196	Bombay
1,24,16,072	1,21,27,657	1,13,50,019	1,07,30,765	1,11,05,110	1,21,61,171	1,21,10,703	1,50,01,999	1,57,59,099	1,15,03,331	1,25,23,760	1,87,18,017	GRAND TOTAL

1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	Province.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs. (b)	Rs.	Rs.	Rs.	
-1,18,903	-1,23,859	-61,661	-50,361	-61,493	-1,93,252	-59,052	-45,019	-16,667	Imperial *
15,95,152	13,89,080	16,17,027	14,36,165	13,86,893	7,16,020	37,475	3,101	60,378	Bengal
27,33,935	21,97,801	32,07,680	29,36,675	27,90,928	16,97,495	18,81,759	19,91,605	18,62,731	United Provinces
11,10,506	12,04,315	2,36,113	10,31,706	1,83,571	-4,16,566	1,59,897	-2,57,140	-1,54,761	Punjab
(a)	(a)	(a)	(a)	(1)	(a)	(a)	(a)	(a)	
1,36,68,575	1,46,53,176	1,35,69,810	96,75,372	1,25,57,509	81,07,012	17,19,709	23,78,171	27,12,999	Burma
3,62,969	-1,39,317	2,75,386	2,16,788	36,613	70,713	-1,35,241	-12,910	10,752	Bihar and Orissa
11,71,157	16,85,967	21,67,693	16,15,107	12,09,706	1,46,458	3,15,870	2,06,188	2,60,179	Assam
16,41,630	16,72,695	15,78,692	17,97,057	20,21,855	11,51,077	9,93,917	10,17,871	10,62,612	Central Provinces and Berar
2,33,123	1,73,775	2,43,166	2,60,503	2,60,577	11,723	2,57,306	1,98,225	2,26,270	Coorg
1,06,856	1,50,117	65,226	-5,558	21,159	-9,806	-22,613	1,20,916	36,590	North-West Frontier Province.
17,593	-12,791	-6,339	11,663	12,603	11,452	-97	15,972	25,826	Ajmer.
-7,737	-4,480	-1,152	-13,453	-8,651	-12,418	-6,710	-6,751	-12,608	Baluchistan
-2,11,031	-49,231	-32,622	1,71,779	3,59,359	2,19,578	2,19,796	3,11,306	3,01,005	Andamans.
-7,08,336	-6,22,511	-6,10,197	-8,35,736	-8,27,969	-8,78,865	-7,01,082	-5,17,618	-5,43,140	Forest College and Research Institute.
"	"	"	"	"	"	"	"	"	Forest Surveys (Imperial).
3,47,231	5,66,836	5,71,897	15,95,270	17,16,158	5,55,703	3,01,157	3,96,419	5,22,135	India.
93,29,112	32,96,901	29,82,313	28,50,530	27,99,686	1,20,89,563	1,07,17,813	1,20,81,408	1,20,81,408	Bombay.
2,59,07,623	2,63,68,115	2,56,21,452	2,37,47,874	2,40,86,818	1,20,89,563	1,07,17,813	1,20,81,408	1,20,81,408	GRAND TOTAL.

Office Establishment, and undistributable and petty local items and revenue and charges on Indore and Bikaner. Excludes Tigris charges.
Orissa
to Bengal.

STATEMENT No. XX.

Forest Area by ownership (in square miles).

Province.	Type of Forests	THE STATE			Corporate Bodies	Private individuals	Total	REMARKS.
		Dedicated to timber production	Other forest	Total				
1	2	3	4	5	6	7	8	9
Bengal	Merchantable	6,925	31	7,026		1,654	8,680	
	Unprofitable or inaccessible	21	3,445	3,466			3,466	
United Provinces	Merchantable	3,491	700	4,191	21	1,200	5,412	
	Unprofitable or inaccessible	...	10,084	10,084		1,876	11,960	
Punjab	Merchantable	874	181	1,055	132	.	1,187	
	Unprofitable or inaccessible	1,161	2,977	4,138	667	..	4,805	
Birma	Merchantable	21,991	52,916	74,907		.	74,907	
	Unprofitable or inaccessible	6,061	41,483	48,461	.	...	48,461	
Federated Shan States	Merchantable	2,433	5,784	8,217	..	...	8,217	
	Unprofitable or inaccessible	715	50,615	51,330		...	51,330	
Bihar and Orissa	Merchantable	902	2,118	3,020	..	14,118	17,138	
	Unprofitable or inaccessible		679	679		..	679	
Assam	Merchantable	3,282	..	3,282		52	3,334	
	Unprofitable or inaccessible	2,879	15,616	18,495	...	...	18,495	
Central Provinces	Merchantable	12,221	(a) 2,176	20,397	.	16,208	36,605	
	Unprofitable or inaccessible	..	(b) 2,686	2,686	.	9,226	11,912	
Coorg	Merchantable	372	191	563	...	199	762	
	Unprofitable or inaccessible	123	139	262	.	146	409	
North-West Frontier Province	Merchantable	180	.	180	..	35	215	
	Unprofitable or inaccessible	..	175	175		98	273	
Ajmer	Merchantable	100	.	160			100	
	Unprofitable or inaccessible	42	..	42	..	.	42	
Baluchistan	Merchantable	...	.	..	.	.	.
	Unprofitable or inaccessible	...	788	788	...	...	788	
Andamans	Merchantable	2,076	.	2,055		..	2,055	
	Unprofitable or inaccessible	134	..	134	..	..	134	
Madras	Merchantable	4,171	6,890	(c) { 11,061	...	5,432	16,543	
	Unprofitable or inaccessible	2,833	5,388	{ 7,926	.	14,369	22,315	
Bombay	Merchantable	7,642	1,103	(d) { 8,745	..	165	8,910	
	Unprofitable or inaccessible	.	5,440	{ 5,440	..	..	5,440	
TOTAL	Merchantable	66,709	78,090	1,14,799		205	99,378	1,84,382
	Unprofitable or inaccessible	11,334	1,30,715	1,54,129		667	25,735	1,60,531
GRAND TOTAL		81,093	2,17,805	2,68,928		872	125,113	3,64,913
Percentage of total Forest Area		22.2	50.7	81.9		0.2		

(a) Includes 2,485 square miles of Ryotwari Forests

(b) Includes 1,163 square miles of Ryotwari Forests

(c) Includes 3,355 square miles of Ryotwari Forests but excludes 621 square miles of reserved and leased lands

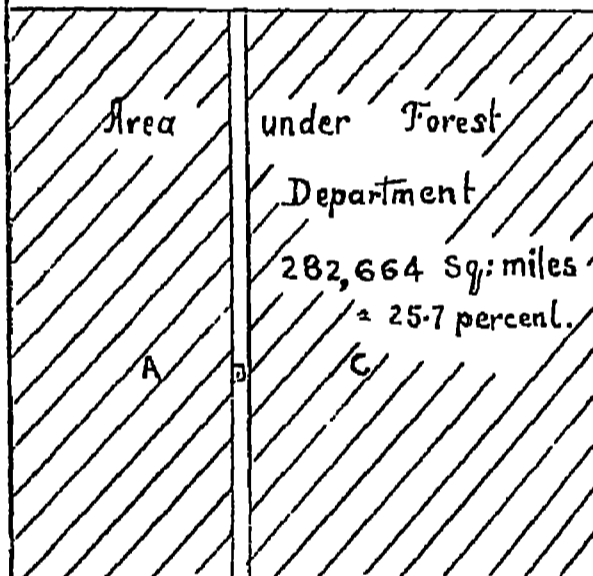
(d) Includes 2,279 square miles of reserved and protected Forests not under the management of the Forest Department.

APPENDIX 1.

STATISTICAL DIAGRAMS RELATING TO FOREST ADMINISTRATION IN BRITISH INDIA.

Area under the control of the Forest Department compared with total area of British India
(including the Shan States).

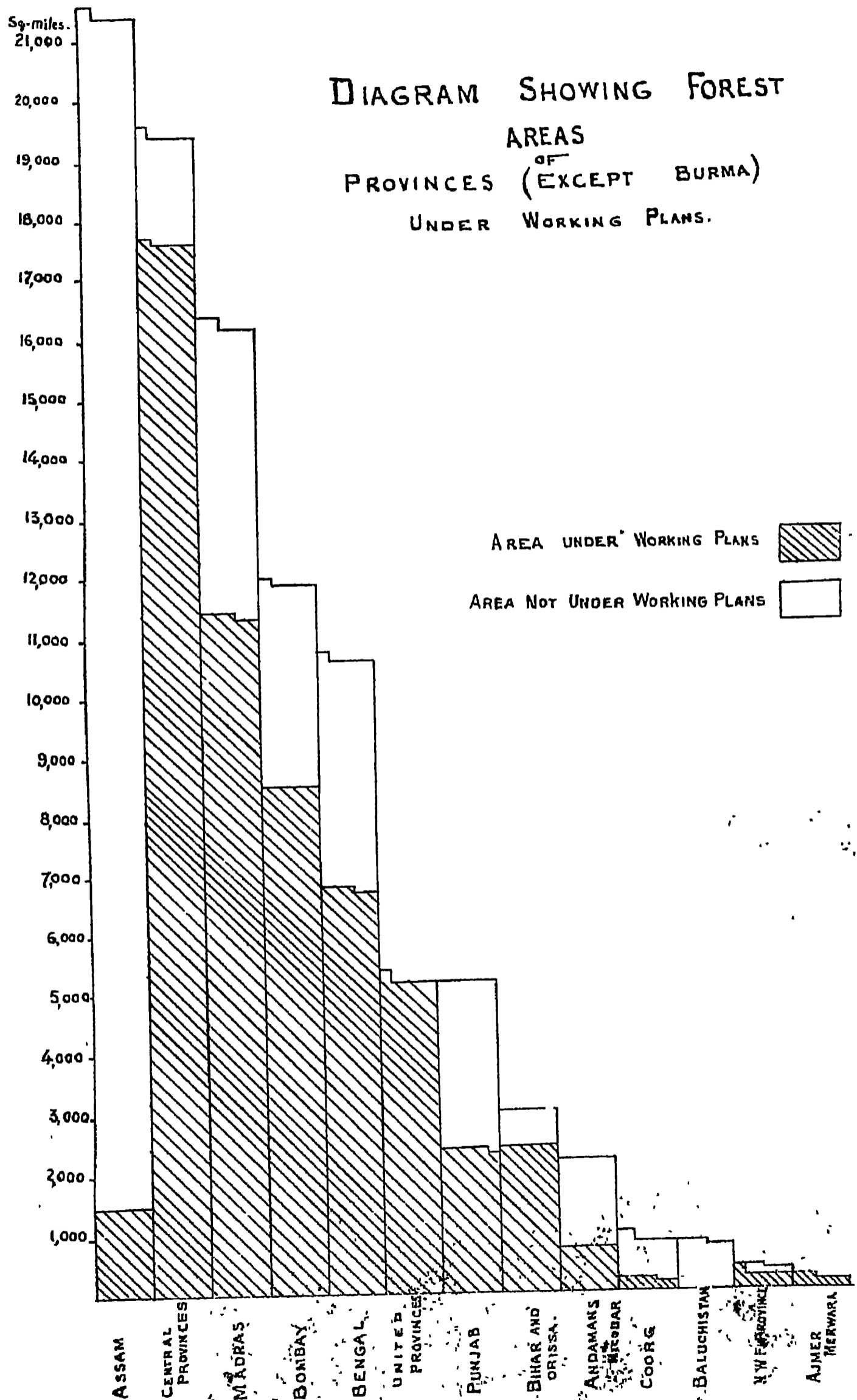
Area not under
Forest Department
816,839 Sq. miles.
= 74.3 percent.



Total area -
1,099,503 Sq. miles.

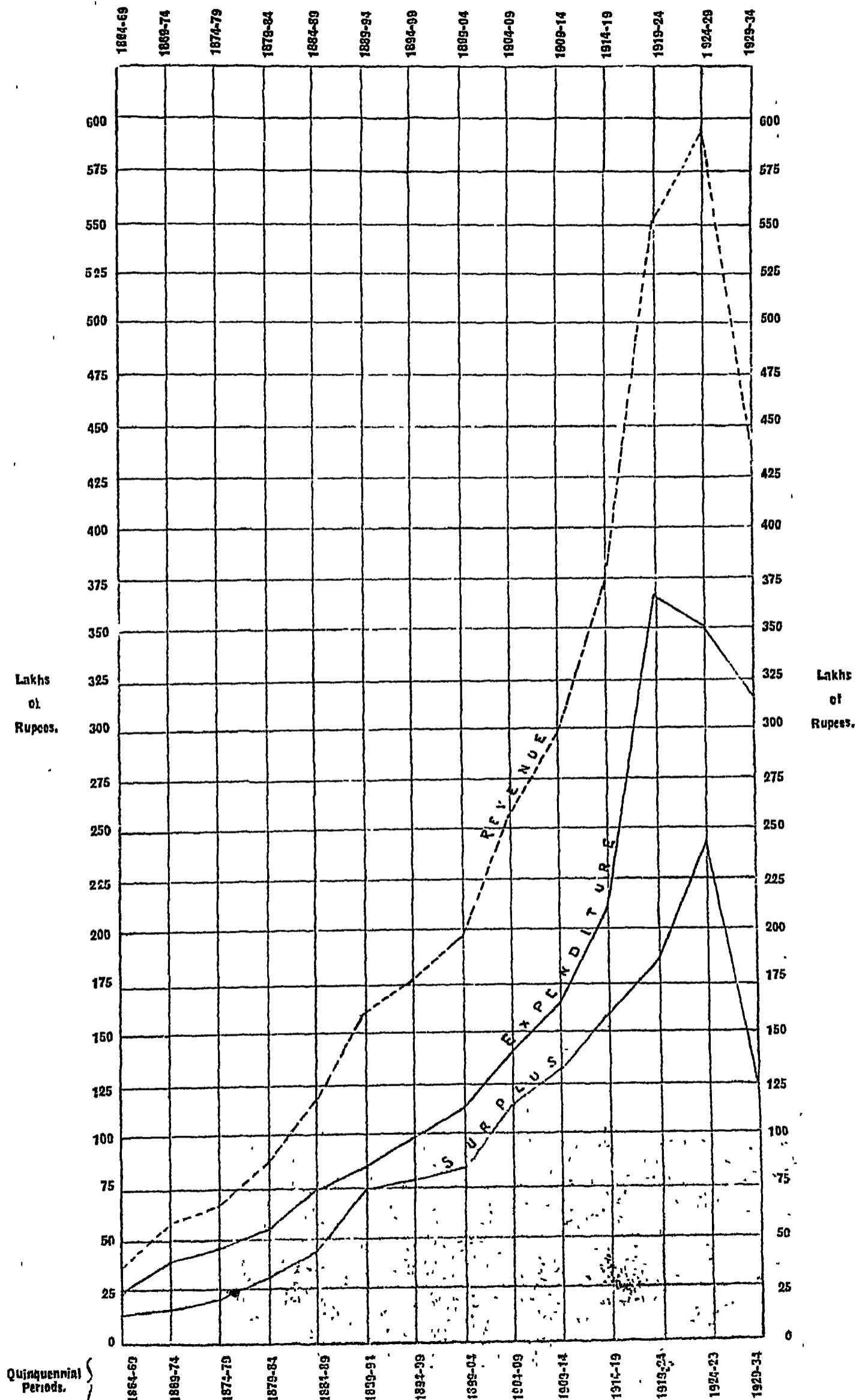
A. Reserved Forests 106,079 Sq. miles.
B. Protected " 7,003 " "
C. Unclassed " 109,582 " "

APPENDIX 2.



APPENDIX 3.

GROWTH OF FOREST REVENUE AND EXPENDITURE BY QUINQUENNIAL PERIODS SINCE 1864-69.



APPENDIX 4.
DIAGRAM SHOWING ANNUAL FOREST REVENUE, EXPENDITURE & SURPLUS
for the 10 years 1924-25 to 1933-34.

